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### ★ THE COVER

Dow Chemical Co. (see Water Shipments Save Money, page 20) has inaugurated an all-water route for shipping hydrochloric acid from Texas to Ohio. Men in the cover photograph are shown opening the forward bow through the 4-in. line on the discharge side of the pump. Storage capacity at the Cincinnati terminal is 4½ million gallons

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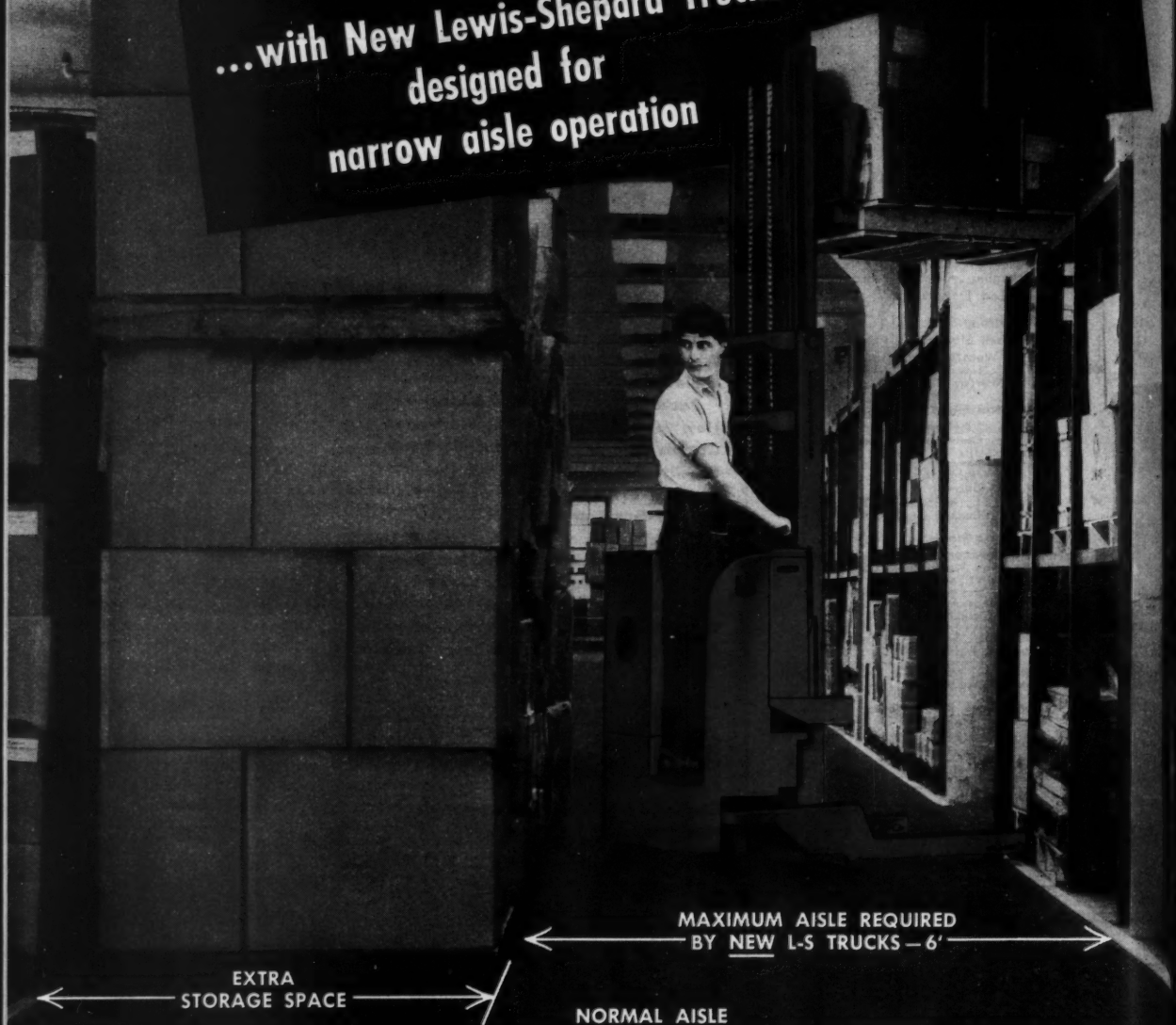
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NOVEMBER, 1952

# Now Increase your Storage Space 40-50%

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narrow aisle operation



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BY NEW L-S TRUCKS — 6'

EXTRA  
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NORMAL AISLE  
REQUIRED BY  
FORK TRUCKS — 10' to 12'





### ***Dubious Yankee Ingenuity***

A couple of weeks ago, we took in a conducted tour of a few of New England's great industries. It was the Sixth Annual Research Tour, sponsored by the New England Council.

Visiting industrial plants is no novelty to us, but doing it under the precise schedules and able management of American Express was a new experience. We liked it.

We also liked most of what we saw. Being a Connecticut Yankee by birth, we were proud to see that rigor mortis had not set in as we feared it would, years ago, when we left our home site for greener pastures. In fact, from what we've seen and heard, we're fondly nurturing the belief that the Yankees are tooling and gearing up for a strong return to the industrial leadership they enjoyed in the days when father wore knee breeches.

But all is not roses. The boys up Nor'East still have a long way to go just to catch up with other industrial areas.

Their problem is not one of quality or quantity. On both of those counts they rate high. It is a problem of handling—the movement of raw, in-process, and finished goods.

In some cases, handling is primitive; four men slowly struggling with a load that easily and speedily could be handled with a fork-lift truck and one man. In other cases, handling has advanced a generation but still is makeshift. Just to prove that we're not too critical, here's just one f'rinstance:

One plant visited evoked much admiration from our group about the excellent production processes, controls, and tools in use. As we approached one department, our guide pointed with great pride to a large production machine; a \$30,000 investment that promised to pay big dividends. But, as we moved on, we almost tripped over a child's metal express wagon. For a moment, we stared at this incongruous sight—fearfully suspecting, yet not believing, that this battered toy with bent axles and misaligned wheels might be used for . . . (perish the thought!)

As our group moved on, timidly and furtively we slipped the question to the guide. In a matter of fact and nonchalant manner, he replied. We were dumfounded!

A minute later, as we moved along in a daze, another member of our tour, travelling with another group, rushed up to us. "Want to see something special in the way of materials handling equipment?"

Before we could answer, he pulled us into an adjoining bay and pointed—to another child's express wagon!

May we suggest that the New England Council tackle materials handling as its next collective research project? We can promise immediate as well as long range benefits.

### ***Yakkety Yak***

Of course, Woolley's article on oyster handling (Page 22) proves that there are exceptions to the rule, even in New England. Soon we will publish another. But they are rare.

. . . We had an interesting visit at the Japanese Embassy last fortnight. We have the Ambassador's word that Japanese manufacturers are going to employ fair tactics and abide by international rules. No more "Made in USA" (Japan).

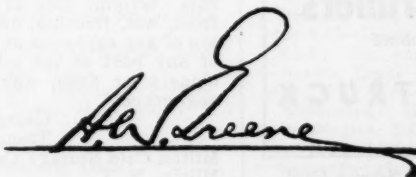
. . . Industrial credit is tightening; will get tighter. Push mechanization programs now.

. . . Last week, we had a marvelous demonstration of how plant space can be gained. A \$3,000 re-layout job netted 32,000 sq ft.

. . . A good materials handling program must start with management.

. . . Congratulations to the Ohio Valley Shippers for doing something about clean cars instead of just talking about it. See Page 44.

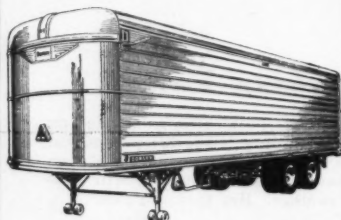
. . . This month ends the warehouse survey. Be sure to fill in and mail the postcard on Page 35. And if you have any major problems you would like to submit for survey, send them in now.



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# LETTERS

## TO THE EDITOR

### Times HAVE Changed

To The Editor:

Your article, "Times Have Changed for the Traffic Manager, Too," prepared by Bert H. Peterson, Jr., and appearing in the July issue of DISTRIBUTION AGE on Page 30, was superior. Our profession needs more of the same.

Bert Infante  
Traffic Manager

John Sexton & Co.  
Pittsburgh, Pa.

Mr. Peterson's article was well received, and seems to have hit the nail squarely on the head. Incidentally a partial answer to your letter of last month, Mr. Infante, appears in the article beginning on Page 44 in this issue of DA.—Ed.

### Act of God

To The Editor:

During November, 1950, a wind storm blew off the tar and paper roof deck of our cold storage warehouse. It was late Saturday afternoon. Rain continued through Sunday. On Monday we made temporary repairs. Rain had leaked through, however, and apples stored directly under the exposed portion of the roof became more or less wet.

Ordinarily this wetting would be an advantage to the apples, providing additional moisture. The water, however, discolored the wooden containers, making them unattractive.

The owners of the apples claim we were negligent in that we did not notify them so that the apples could have been removed. They claim the apples could have sold for more money at the time than they did later in the spring, when the market became weak.

The apple owners plan suit, basing their claim on negligence. Before passing judgment, please note terms printed on the back of our storage receipts. The terms say, in effect: Milton Cold Storage Co. is not responsible for any results or effect of the cold storage rooms on the conditions of the goods covered by this receipt for any damage or loss of said goods from causes beyond its control, or by reason of fire, water, change of weather, leakage, rats, vermin, loss in weight, heat, frost, wet, freezing, decay, or by reason of any explosion or breaking down of any part of the cold storage machinery or from any cause except negligence.

George Hildebrand  
Treasurer

Milton Cold Storage Co., Inc.  
Milton, N. Y.

According to all leading higher court decisions, your warehouse receipt will not relieve you from liability, if the court decides that damage resulted from your negligence. A warehouseman cannot make a valid contract against his negligence.

Although the court may hold you negligent, the owner cannot, in my opinion, recover damages based on the value of the apples at the time of the damage. This is so, generally speaking, the damage allowance will be based on the value of the apples when removed from storage.

Whether or not you are liable would not, in my opinion, depend upon evidence that the owner would have removed the apples if you had notified him immediately of the damage. In this case the unusual rain and an Act of God blew off the roof. For that you are not liable. If your warehouse closed Saturday at noon, how were you to know that the roof blew off? Of course, you should have had a watchman for this purpose, but even so, who can one get today, even during week days, to immediately repair a roof? The matter of having it repaired Saturday afternoon or Sunday may have been an impossibility and not negligence on your part.—Leo T. Parker, Legal Consultant.

### Free Literature

To The Editor:  
Information offered through your Free Literature columns is a great service to those of us engaged in the traffic field.

George A. Lutz  
Traffic Manager

Fort Slocum  
New Rochelle, N. Y.

Free Literature and New Products continue among DA's most popular features. Because of high reader interest, we are constantly on the lookout for improvements to these departments. In this light, we believe the new Reader Service Card set-up (Page 35) along with the Industry Survey, is another step in the right direction.—Ed.

### Traffic Lift

To The Editor:

I very much enjoy reading DISTRIBUTION AGE. It provides quite a lift to the traffic man.

Carl Kratzer  
Traffic Manager

Sarco Co., Inc.  
Bethlehem, Pa.

The remarks of Mr. Kratzer, and others who comment on DA presentations, do not go unappreciated.—Ed.

# Chuting the NEWS

## Arthur P. Little Named President By Shippers Advisory Board Group

Arthur P. Little, of Farmingham, Mass., general traffic manager of Dennison Mfg. Co., was elected president of the National Association of Shippers Advisory Boards at the organization's annual meeting last month.

Named vice presidents at the St. Louis, Mo., meeting were John W. Lind, National Supply Co., Pittsburgh, Pa., and C. L. Denk, Jr., Fulton Bag and Cotton Mills, Atlanta, Ga. J. W. Witherspoon, U. S. Rubber Co., Los Angeles, Cal., was named national secretary.

James K. Knudson, Defense Transport Administrator, told the group that America must gear its transportation planning for instant action in the event of expanded mobilization efforts or all-out war. Methods of obtaining greater utilization of railroad equipment were discussed at the meeting, as well as the national clean car campaign (see Page 44). The association has approximately 25,000 members, who ship 86 per cent of all freight moving by rail.

## New Products, Equipment, Ideas Offered at SIPMHE Exposition

A large segment of American industry took advantage of the new products, new equipment and new ideas offered at the Seventh Annual Industrial Packaging and Materials Handling Exposition, sponsored by SIPMHE last month.

Attendance and participation in the Chicago show were record breaking. The annual Short Course, conducted concurrently by the University of Illinois, also enjoyed record participation. Theme of the Exposition and Short Course was, "Making Profits Through Packaging and Materials Handling."

The number of exhibiting firms hit a new high for the annual show, with most of the products and equipment displayed representing the very latest in packaging and materials handling engineering. The Short Course was highlighted by a series of pertinent papers and panel discussions, presented by some of the country's leading men in the field.

(Please Turn Page)



Over-the-road scenes in the Pacific Intermountain Express 24-min film, "Wheels of Progress," were photographed on the highways by Producer Hal McAlpin (standing) of Los Angeles, Cal., and his cameraman by utilizing a specially constructed wooden platform secured to a long-haul PIE tractor frame between the back of the cab and the 35-ft cross country trailer

## Coming Events

Nov. 5-7—16th Annual Time and Motion Study and Management Clinic, Industrial Management Society, Sheraton Hotel, Chicago, Ill.

Nov. 7-10—Local Cartage National Conference, Hotel Sheraton Cadillac, Detroit, Mich.

Nov. 10-13—National Association of Railroads and Utilities Commissioners, Little Rock, Ark.

Nov. 11-14—American Association of Port Authorities, 41st International Convention, Savannah, Ga.

Nov. 20-21—National Industrial Traffic League, New York, N. Y. (Executive Council, Nov. 18-19)

Nov. 21—Association of American Rail-

roads, annual meeting, New York, N. Y.  
Nov. 25—American Standards Association, 34th Annual Meeting, Waldorf-Astoria Hotel, New York, N. Y.

Nov. 30-Dec. 5—Exposition of Power and Mechanical Engineering, New York, N. Y.  
Dec. 1—American Society of Mechanical Engineers, Aviation Division, Fourth Annual Air Cargo Day, Hotel Statler, New York, N. Y.

Dec. 8-9—Central Western Shippers Advisory Board, Omaha, Neb.

Dec. 18—Materials Handling Institute, meeting, Hotel Statler, New York, N. Y. 1953

Jan. 19-22—Plant Maintenance Show, Public Auditorium, Cleveland, Ohio.

Feb. 18-20—The Society of the Plastics Industry, Inc., Eighth Annual Reinforced Plastics Division Conference, Shoreham Hotel, Washington, D. C.

Feb. 25-28—National Vehicle Show and Fleet Maintenance Exposition, New York.

April 20-23—American Management Association, Packaging Conference and Exposition, Navy Pier, Chicago, Ill.

May 9-15—The Society of the Plastics Industry, Inc., Annual Meeting and Conference, Cruise to Bermuda.

May 17-21—American Warehousemen's Association, 62nd Annual Meeting, Washington, D.C.

May 18-23—Materials Handling Exposition, Convention Hall, Philadelphia, Pa.



# Chuting the NEWS

(Continued from preceding page)

## Railroad President Urges Better Highways; Claims Transportation Progress Lies in Carrier Unity

A railroad president last month gave full backing to the current campaign for better roads and urged all forms of transportation to work for better highways.

Abraham Watner, president of Wisconsin Central Railway and head of his own trucking company in Baltimore, Md., the American Transfer Co., explained that his experience with both trucks and tracks had taught him the vital importance of roads to all forms of transportation.

In a plea for transportation unity, before the Milwaukee

Transportation Club, he stressed that all forms of transportation should "... get together, each in his proper place, to get on with the job of hauling American goods. . . ."

He attacked restrictions currently hampering American transportation and laid down an immediate two-point program:

- (1) End unreasonable ICC regulations that hamper railroads;
- (2) End unreasonable state limits on weight, length, etc., that hamper trucks.

—DA—

## Safe Transit Birthday

The National Safe Transit Committee marked its fourth birthday last month with the addition of eight new companies under its nationwide program to reduce damage to products in transit. Certification of the eight companies brings the total to 111 firms participating.

—DA—

## ATC Convention

Some 1200 delegates representing 300 member clubs gathered in St. Paul, Minn., Oct. 20-22, for the Annual Convention of the Associated Traffic Clubs of America. William T. Farley, president of the Association of American Railroads, was the principal speaker.



Walter F. Carey, ATA president, is shown taking a steering lesson on the Aetna Roadmaster, part of Trailmobile's safety exhibit at ATA convention in New York



Acme Steel Co., Chicago, Ill., showed this new strapping machine, Model F3, at the 17th Southern Textile Exposition in Greenville, S. C., last month. It features moderate compression and 2 simultaneous strapping operation

## Handling Competition

Shervin Freed, graduate student at the Illinois Institute of Technology, won first prize in the second annual Wunsch Foundation materials handling essay competition. Second prize went to Jack Doolittle, an Institute senior.

—DA—

## ATA Elects Carey At Annual Session

Walter F. Carey, of Birmingham, Mich., president of Automobile Carriers, Inc., Flint, Mich., was elected president of American Trucking Associations, Inc., at the Annual Convention in New York, N. Y., Oct. 6-10.

More than 2500 trucking industry leaders and their guests from every state attended the 19th annual gathering in the Waldorf-Astoria. Former Postmaster General James A. Farley, president of Farley-GMC Truck Co., Inc., New York, N. Y., opened the meeting with an address at the first general luncheon.

Farley's address keynoted the general theme of the conference. He spoke of the great need for more adequate roads and scored what he called "punitive state taxes and capricious state highway weight laws."

A feature of the program was a panel discussion on highway problems, moderated by John V. Lawrence, ATA managing director. The convention agenda also included the 12th National Truck Roadshow.



Shown above is the Board of Directors of the Truck-Trailer Manufacturers' Association at the Fall Quarterly Meeting in Cincinnati, Ohio, last month. They are, seated, left to right: R. C. Tway, Jr., T. C. Brown, W. E. Grace, S. E. Biggs and John B. Hulse. Standing: Ralph Veenema, N. A. Carter, Sr., P. M. Heinmiller, H. C. Wolf, C. W. Alexandria, David Homan, Harrison Rogers, E. J. Lucas, and Christopher Hammond, Jr. Mr. Lucas of the NPA was a featured speaker

## TTMA President Tells Directors Controls on Prices Of Truck-Trailers and Steel Supply May End Jan. 1

Controls on prices of truck-trailers and of the supply of steel to manufacturers may be "off by the first of the year—resulting in a 30 per cent boost in production," according to W. E. Grace, president of the Truck-Trailer Manufacturers' Association.

This prediction was made by Grace while in Cincinnati, Ohio, attending the quarterly meeting of the directors of the TTMA.

S. E. Biggs, vice-president of Trailmobile Inc., a subsidiary of

Pullman Incorporated, and eastern vice-president of TTMA, was host to the 15-man board of directors of the organization, at luncheon after which they toured the Trailmobile main plant.

John B. Hulse, managing director of TTMA, said there had been a decided increase in the demand for truck-trailers in the past 30 to 60 days. E. J. Lucas, Washington, D. C., representing NPA, made an encouraging forecast regarding the supply of materials.

—DA—

—DA—

## Atomic MH Equipment

Atomic propulsion of electric industrial trucks is one of many engineering advances in materials handling expected during the next few years, according to B. I. Ulinski, director of engineering, Automatic Transportation Co., Chicago, Ill.

Ulinski said at the Iron and Steel Exposition in Cleveland, Ohio, last month that with the present pace of progress in atomic energy research related to industrial applications, revolutionary developments in propulsion power supply for materials handling equipment can be expected.

—DA—

A record \$1,300,000,000 poured into state and federal coffers last year in special taxes levied against trucks.

## 50th Anniversary

*The Milwaukee Traffic Club celebrated its 50th Anniversary Oct. 11 with an affair at the Schroeder Hotel, in Milwaukee, Wis. More than 700 attended the celebration.*

—DA—

The Port of Philadelphia area established a new all-time record in 1951 by handling 74,008,757 tons of waterborne commerce.

—DA—

## Lanterman Elected

W. G. Lanterman has been named a director of the Philadelphia Chapter of the American Materials Handling Society. Mr. Lanterman is Philadelphia field engineer for Lamson Corp.

(Please Turn to Page 71)

# MEN IN THE NEWS

## Materials Handling

Paul E. Wilson—new manager, Receiving and Marking Department, J. L. Hudson Co., Detroit, Mich.

Walter S. Maranuk — named vice president, H. A. Stevenson, Inc., Detroit, Mich., Michigan distributors of Baker industrial trucks.

Raymond F. Purinton—named sales and service representative, Denver, Col., area, Lewis-Shepard Products, Inc.

Paul R. Grosjean is manager and treasurer of New England Industrial Truck Co., Inc., Boston, Mass., New England sales representatives for Automatic Transportation Co.



James D. Rolando — appointed to sales department, Brainerd Steel Division of Sharon Steel Corp., Sharon, Pa.

Horace E. Little — president, New England Industrial Truck, Inc., recently appointed New England sales representative for Automatic Transportation Co.

Harry C. Oliver—appointed sales manager of U. S. Tires with offices in New York, N. Y.

William V. Cigliano—new assistant general manager, Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

## Packages & Packaging

Bruce M. Stern — appointed sales representative, Santa Clara Valley, Cal., National Container Corp.

Mrs. Edythe B. Belmont has been appointed packaging consultant for Lever Brothers Co., New York, N. Y.



George J. Tooker—named manager of the Natick, Mass., Boxboards Division by Robert Gair Co., New York, N. Y. Gair also named Russell D. Scribner manager of the New London, Conn., Mill and Box Shop, and James

(Please Turn to Page 52)

# Announcing... **NEW TRANSVEYOR!**

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### EXPRESSLY DESIGNED for

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- ★ Narrow Aisles
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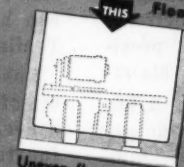


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# Washington **DA**

By Karl Rannells, *Chilton Washington News Bureau*

## **Materials Outlook**

Generally speaking, the non-defense picture is brighter for the lighter and the more standard types of equipment. Worst bottle-necks are, and are likely to continue for awhile, in the components and parts fields, especially in relation to such products as non-standard sprockets and bearings.

Situation is tightest with respect to overhead traveling cranes and monorail systems, especially the heavier types. This is the field in which there is still heavy demand by expanding defense industries, atomic energy installations, etc. A great deal of available material must go into special equipment.

The situation is spotty with respect to chain conveyors, with materials shortages reported by individual firms which have heavy orders from expanding industries such as coke and coal production. Control officials say the situation with respect to elevators and hoists seems good, and reasonably good for fork lifts, industrial trucks, shop mules, and similar items.

## **Controls Future**

Price controls over goods and services, under current legislation, are due to expire April 30 next.

Production control authority runs until June 30. But the picture is becoming clearer as to what the government agencies are likely to ask of the new Congress.

Talk among the insiders is that no great effort will be made to have controls extended as they now exist. But a strong pitch will be made to have Congress authorize or enact a "more rigid" program for both production and price control—to be maintained by a skeleton staff on a "standby basis."

The joker is that the Congress will be asked to give the White House authority to put the program into effect at its discretion by merely issuing an Executive Order.

## **Government Authority**

Governmental agencies, too, often have their jurisdictional disputes. Recent changes have been made between two agencies, however,

which makes it clear who has the say about allocations, priorities, requisitions, condemnations, etc., when it comes to storage facilities in which the government has an interest.

Food storage, private farm storage, fertilizer, and tobacco auction warehouses, other than public, belong under the wing of the Agriculture Department. DTA will exercise any government authority over other warehousing facilities.

## **Materials Handling**

Demand for materials handling equipment from expanding defense and supporting industries is likely to remain strong throughout next year. But the emphasis will lean more toward deliveries since a substantial proportion of such needs are already an order.

Defense Mobilizer Fowler estimates that about one-half of the \$23 billion industry expansion program backed up by government aid, such as tax certificates, will have been completed by the end of December. He further figures that a sizeable amount of the remainder will go into place during 1953.

This means that supplies of raw materials for non-defense orders will probably begin to ease soon after the first of the year. Metal shortages as a result of the steel strike has hurt materials handling manufacturers but not too badly because of the lag time between orders and deliveries.

## **Defense Delivery**

Although the peak of defense production is now thought by top officials to be in sight, brunt of the load to be carried by the distribution industries is still many months in the future. Consider these facts on the desk of Defense Mobilizer Joe Fowler as of Oct. 1:

Since Korea, Congress has appropriated some \$129 billion for military and defense purposes, at home and abroad. To date, only \$58 billion has been actually spent or committed in the form of orders (leaving \$30 billion to be spent).

But only \$41 billion of the actual and proposed expenditures are now in the form of completed construction projects and delivered goods. This means that two-thirds—or \$88 billion worth—of the money already made available must still be turned out and distributed as finished orders. And current talk is that the defense agencies will ask Congress next January for another \$45-50 billion.

## **New Navy Center**

The Navy Department last month finally selected the site for its new 1700-acre Supply Center which Congress had authorized and already allotted some \$9,000,000 with which to begin work. Navy officials say construction is not likely to begin before spring on the site near Macon, Ga.

It is intended to serve the Sixth (Southern) and Eighth (Southwestern) Naval Districts. When completed, it will have 5,000,000 feet of covered space and twice that amount of open storage space.

*(Please Turn to Page 75)*



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 Astoria, Oregon  
 Atlanta, Georgia  
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 Cincinnati, Ohio  
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 Council Bluffs, Iowa  
 Dallas, Texas  
 Denver, Colorado  
 Des Moines, Iowa  
 Detroit, Michigan  
 Eugene, Oregon  
 Fresno, California  
 Gering, Nebraska

Glendale, California  
 Hollywood, California  
 Kansas City, Missouri  
 Las Vegas, Nevada  
 Lewiston, Idaho  
 Lincoln, Nebraska  
 Long Beach, California  
 Longview, Washington  
 Los Angeles, California  
 Memphis, Tennessee  
 Milwaukee, Wisconsin  
 Minneapolis, Minnesota  
 New Orleans, Louisiana  
 New York, New York  
 Oakland, California  
 Ogden, Utah  
 Omaha, Nebraska  
 Pasadena, California  
 Philadelphia, Pennsylvania  
 Pittsburgh, Pennsylvania  
 Pocatello, Idaho  
 Pomona, California  
 Portland, Oregon  
 Reno, Nevada

Riverside, California  
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 Sacramento, California  
 Salina, Kansas  
 Salt Lake City, Utah  
 San Diego, California  
 San Francisco, California  
 San Jose, California  
 San Pedro, California  
 Santa Ana, California  
 Santa Monica, California  
 Seattle, Washington  
 Sioux City, Iowa  
 Spokane, Washington  
 Stockton, California  
 Tacoma, Washington  
 Tulsa, Oklahoma  
 Victor, Idaho  
 Walla Walla, Washington  
 Washington, D. C.  
 Winston-Salem, N. Carolina  
 Yakima, Washington

(And—in addition—passenger and freight representatives at all Union Pacific Railroad stations will be glad to assist you.)

**BE SPECIFIC "SHIP" UNION PACIFIC**

Circle No. 108 on Card, Page 35, for more information

## **Industry Outlook on Private Warehousing**

**Analysis shows more than 68% of respondents own or rent private warehouse facilities; more than 75% of owners also rent storage space in public warehouses; less than one per cent plan to expand**

**P**PRIVATE warehousing continues to be an important industry function, according to data obtained from a current industry survey by DISTRIBUTION AGE. Practically 69 per cent of the industries represented in the survey own or maintain (lease) warehouse facilities.

Apparently the proper balance between this and other industry functions has been reached because, as a whole, no expansion or reduction in warehouse facilities is being planned. For the .5 per cent who have discontinued maintaining their own warehouse facilities, an equal percentage is planning expansion or acquisition of own facilities.

### **Not Planning Expansion**

A more positive evidence of stability is indicated by the remaining industries—about 30 per cent—that do not have private warehouse facilities. Most of these firms report that they do not plan to acquire their own warehouses. Only a few are undecided.

This survey also has uncovered the fact that industry relies to a great extent on public warehouse facilities. Approximately 75 per cent of the companies having their own warehouse facilities also use space in public warehouses. It was not explained whether the public facilities were employed for plant

use or as part of each industry's sales distribution system.

These are the principal conclusions reached from answers to questions appearing on the postcard questionnaire published on Page 51 of the September issue of DISTRIBUTION AGE. Other information supplied does not modify the basic conclusions quoted or provide any means of forecasting future trends.

### **Cost Seldom Mentioned**

For example, the .5 per cent of industries who have discontinued maintaining their own warehouse facilities, report that this action was the result of high operating cost. Because no further explanation was offered, it seems reasonable to assume that this merely represents a disinclination to absorb prevalent rising costs in what conceivably could be an unusually competitive market situation for those industries. Or, because no change in sales distribution methods was indicated in these particular cases, another equally reasonable assumption could be a reduced production schedule, which would affect warehouse needs. An empty, or only partially filled, warehouse can be an expensive proposition.

Also, it was impossible to trace a trend or relate warehouse space to current or future industry conditions. Storage areas reported

ranged from 4,000 to 500,000 sq ft for all industries. The square footage for the food industries showed a range from 4,000 to 200,000.

Excepting certain food industries, where products stored were highly perishable, most warehouses were in the dry-warm category.

### **Storage Area "Varies"**

One company in the machinery field, that warehouses both raw and finished products, reported that its storage facility "varies"—without further explanation. On the surface, this could indicate desirable planned flexibility in the form of available covered space.

However, it also could indicate that, when prospects of metals supplies is poor or questionable, the warehouse manager uses every available space on the property; outdoors, aisles, and space around production machines—perhaps even areas in the pattern loft and boiler room.

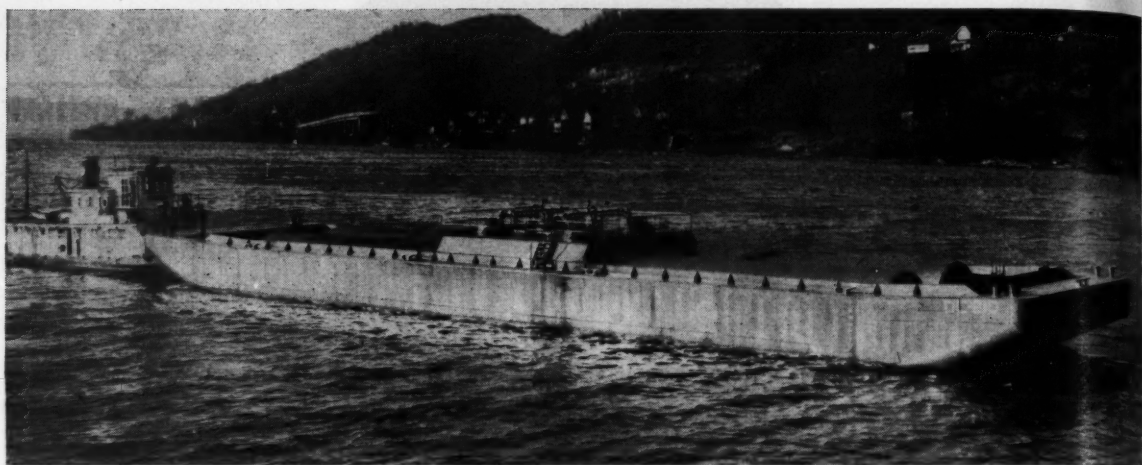
In any case, it reflects good management.

### **What is Warehoused?**

The survey provided an interesting picture of what is stored in the nation's private warehouses. Excluding the food industries, about 63 per cent of the companies participating in the survey report that

*(Please Turn to Page 63)*





Designed for efficient towing, barges have 30-ft rake and deep transom stern

Barge  
Freeport

## Water Shipments Save Money for

**M**ANY of the tricky problems involved in handling and shipping hydrochloric acid have been solved by The Texas Division of Dow Chemical Co. with the inauguration of an all-water route for its 3500-mile round trip from Freeport, Texas, to Cincinnati, Ohio.

In addition, Dow is experiencing considerable savings through economical river shipping rates and greatly reduced loading and unloading time. The simplified handling scheme also minimizes loss through spillage and leakage.

### Highly Corrosive

This chemical, known more generally as muriatic acid, is highly corrosive — especially to metal. Moreover, contact of the acid with iron or steel during loading and unloading or while in transit can ruin the chemical.

After a study of the distribution methods available, Dow's Texas Division traffic department, headed by Oliver Beutel, decided in August, 1947, to utilize the all-

water route. The Freeport plant, located on the Gulf Intracoastal Canal, is ideally situated for water transportation.

Four hopper type cargo barges were fitted with rubber-lined tanks to carry the acid on the Gulf Intracoastal Waterway and up the Mississippi and Ohio Rivers to Cincinnati. The economies achieved through the operation of these four improvised acid carriers, and an increasing demand for the product, led Dow to consider an expansion of the river delivery service.

### Five New Barges

Many lessons had been learned through the performance of the first four barges. Thus, the design of a fleet of five new barges by Dow engineers in collaboration with naval architects of Dravo Corporation, Pittsburgh, Pa., included several features to improve the unique transportation operation.

With the fleet of nine barges, Dow can transport approximately

13¼ million gallons of hydrochloric acid annually from Freeport to Cincinnati.

The first of the new barges was placed in service in December, 1948. Each is equipped with four tanks — the largest rubber-lined tanks ever fabricated for installation in a barge. For better efficiency, the domes of the tanks are located at a central point in the barge and protrude through a working platform that is sloped to the outboard on both sides to provide drainage for spilled acid. A non-skid coating of tar and sand was applied to the deck plating for safety of loading and unloading crews.

### Loading Operation

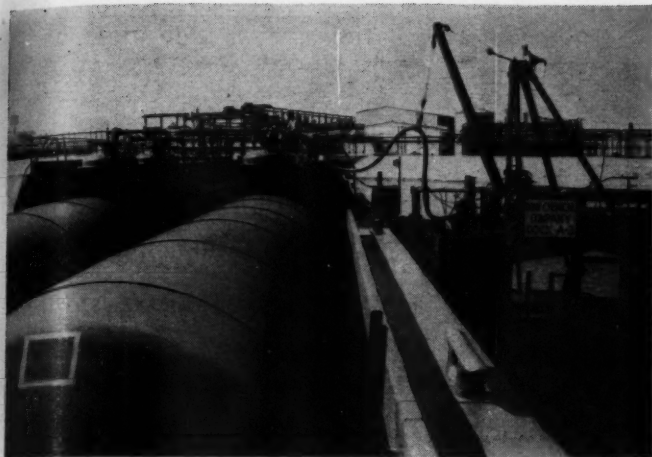
Barges are loaded at Dow's Freeport harbor on the Intracoastal Canal from a dock that carries a fixed 6-in. rubber-lined steel line extending to the acid storage tanks. To this pipe is attached a 4-in. flexible, acid-resistant Saran line. Saran is a synthetic material developed by Dow.

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Barge is readied for loading at the Freeport plant. Capacity is 8000 gal

## for Dow Chemical

One of its outstanding characteristics is its resistance to various acids.

The 4-in. line is handled with a stiff-leg derrick on the dock. It connects to the 6-in. common header pipe on the barge and during loading, the flow into individual tanks is controlled by valves to trim the barge. It usually takes about eight hours for a two-man shore crew to load the barge with 233,600 gal, approximately 1000 tons of acid which is rated at 22 deg Baumé or 35.21 per cent solution.

### Test Analysis

After the vessel has been loaded, a specification analysis of the acid is made. Another analysis takes place at the terminal in Cincinnati. Besides insuring the correct specification of the acid, the tests also could reveal whether any of the rubber lining in tanks or piping has failed, permitting the acid to contact metal. The acid would show

(Please Turn to Page 60)

Dow officials are shown inspecting interior of one of the rubber lined tanks, largest ever built for barge installation



Cincinnati tankermen connect suction hose from pump on liaison barge to header on acid barge





Conveyor system lifts shellfish from dredge deck to oyster bins in plant

Materials handling system with electric barrel shaker solves manpower problem in readying delicate oyster crop for shipping

By Charles Woolley

Shipping Plant Manager  
J. & J. W. Elsworth Co.  
Greenport, Long Island, N. Y.

## Oysters R In Season

# Fine Points on Blue Point

Crew shovels livestock to moving belt, which deposits crop on second floor



**T**O SPEED work in the packing room and save man hours, J. & J. W. Elsworth Co. has instituted a materials handling scheme, featuring a home-designed electric barrel shaker, at its Greenport, N. Y., oyster shipping plant.

The vibrator does the work of two men who formerly rolled each barrel of oysters back and forth between them to settle the stock in crevices. This insures tight packing for shipping by truck or rail across country. The manual method took five minutes for each barrel—the shaker does the job in a matter of seconds.

### Careful Handling

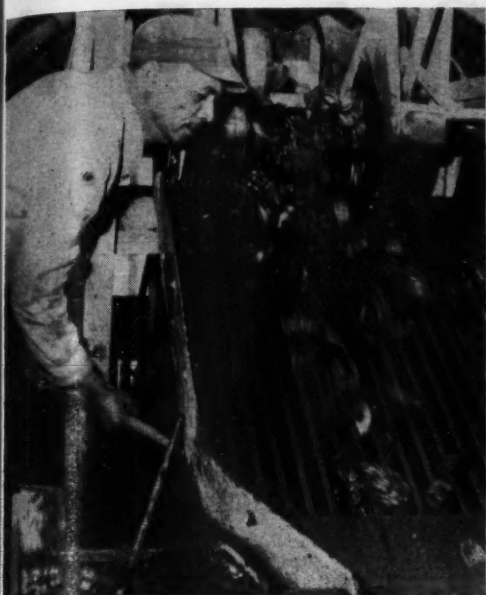
Because oysters must be handled carefully, the industry has always depended on labor rather than machinery in production and shipping of live stock. In 1939 labor shortage

Grizzly  
and sa

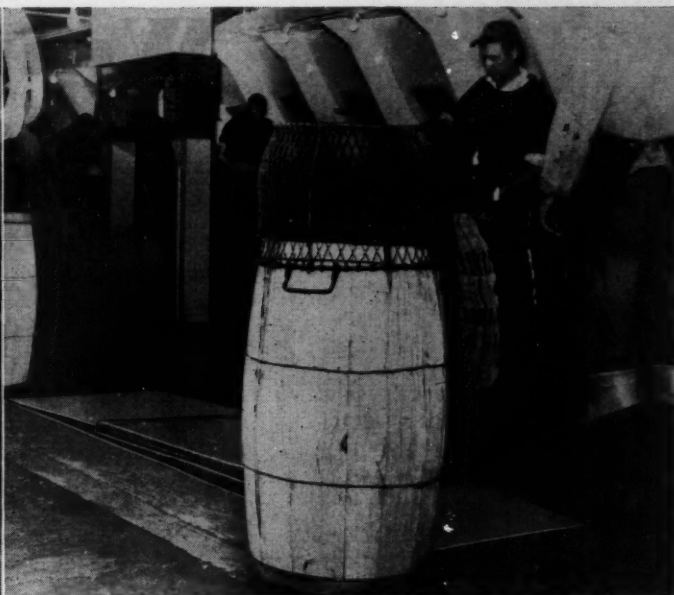
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Grizzly automatically screens gravel and sand picked up by dredging unit



Barrel shaker installed at floor level eliminates lifting and speeds process

Rubber chutes protect delicate shells as oysters are pushed into the bins

## Handling

became acute. At the same time the war period brought an added demand for seafood. It became a question of mechanizing or cutting back production. We have tried to maintain production by installing machinery that would not cause stock mortality.

One way to fill orders as quickly as possible is to avoid unnecessary holdover of dredged oysters at the shipping end. With Railway Express going on a five-day week and the consequent delay at the delivery end, the sooner an order can be despatched, the better the condition of stock by the time it reaches the wholesaler.

Skippers of the vessels call at the plant manager's office daily by 6:30 a. m. to receive orders to be brought in from the oyster beds that day. One boat is equipped

with a marine radio-telephone to get last-minute rush calls from the plant to boats dredging on Peconic or Gardiner's Bays.

Boats dock at the pier by 2:30 p. m. to enable the load to be stored inside the plant before it closes an hour later. A conveyor on the dock is wheeled into position for unloading the cargo. One end rests on the deck of the boat

and the discharge end is under the eaves of the plant's second story. The crew shovels the shellfish onto the moving conveyor belt and the load travels up and into the plant automatically.

### Grizzly Tumbler

A grizzly is placed just inside the plant at a steep angle down (Please Turn to Page 61)



# Wrapping It Up for

## Bidding Tips from a Warehouseman

**A**S A result of the magnitude of the war production program, many small contractors now have the opportunity to bid on government contracts for the first time. Many of these small contractors have been manufacturing for the commercial or domestic market, and there can be no doubt that they are experienced and very capable in their respective fields.

### More Protection

However, due to the unusually severe conditions encountered during long periods of storage and the shipment of military goods overseas, considerably more protection must be given such merchandise than to the materials or supplies that are shipped for commercial or domestic use. Packaging specifications for each of the thousands of items for military end procurement are rigid and precise and must be understood by the contractor bidding on a government contract.

Each military contract put out for bid either includes specific packaging direction or refers to the general packaging specifications which apply to the item that is being procured. The men overseas during World War II will verify the importance of knowing such specifications for correct packaging, marking, and shipping, and of adhering to them.

### Rigid Requirements

The packaging requirements of the government are very rigid, and rightly so. Therefore, when the contractor is estimating the cost of packaging his product, he should follow a few simple rules to avoid the pitfalls awaiting the inexperienced packer.

**If you're having trouble preparing bids on government packaging you'll benefit from the sound advice offered by this authority on military specifications**

The first rule is that the contractor should employ someone familiar with government specifications to interpret his packaging requirements as called out on the invitation to bid. If the contractor has a small organization and cannot afford to employ such personnel on a permanent basis, he can call on a reliable packaging company to furnish him assistance in preparing his bid. Usually this service is furnished without charge.

### Container Costs

The second rule the contractor should follow in preparing his bid is not to submit a bid based on employing shop carpenters, maintenance, and/or excess labor to fabricate the containers. The building of shipping containers is a trade requiring training and should be entrusted only to experienced workmen. When shop personnel, not experienced in packing and crating to government specifications, are employed to build containers, they often think that the container specifications are trivial.

Rejections by government inspectors after the containers have

Editor's Note—For additional information on the Fourth Western Packaging and Materials Handling Exposition and the Second Biennial Packaging and Materials Handling Institute, see "Cost-Cutting Featured at Packaging Handling Show" on Page 34 in the October, 1952, Issue of DISTRIBUTION AGE.

**By Ralph C. Butler**

*Manager, Packaging Division  
Lyon Van & Storage Co.  
Burbank, Cal.*

been built can be a very significant item in the packaging cost. Employment of inexperienced personnel in the fabrication of containers can result in container rejection for any one of the following reasons:

1. Too much moisture in the lumber.
2. Divergence of grain of the lumber.
3. Lumber not of proper quality as to grade or thickness.
4. Wrong size nails.
5. Nail pattern incorrect.
6. Box design not correct for type of load.
7. Box liners not installed before items were packaged.

If the contractor, at the time of submitting his bid, employs a competent and experienced packaging engineer to interpret correctly the government specifications, this pitfall can be avoided. The small cost of expert advice will more than offset the cost of possible repackaging or rebuilding of shipping containers.

A third rule is that the con-

*(Please Turn to Page 56)*

# for Uncle Sam

## Packaging Tips from a Manufacturer

A shipping expert with wide experience in packing for the military reviews government requirements and passes on some valuable packaging suggestions

By J. D. Nunn

Manager, Shipping Department  
Lockheed Aircraft Corp.  
Burbank, Cal.

**M**Y OWN experience in the field of military preservation and packaging generally has been limited to requirements established by the departments of the Air Force and Navy—particularly as they apply to the aircraft industry. However, the principles which I discuss are not peculiar to my company or to the aircraft business. I believe that the points involved in a military packaging program apply generally to a manufacturing enterprise of any nature.

### Pre-Contract Work

The University of Southern California's announcement of this discussion indicates that I am to discuss activity of the manufacturer after his receipt of the military contract. It must be presumed that a manufacturer has taken considerable action prior to his receipt of a contract. This prior action has a very important bearing on his ability to perform efficiently once the contract is in his hands. Also, there is a serious need for the manufacturer to analyze carefully the general preser-

vation and packaging requirements prior to the consummation of the contract negotiations.

Answers also must be found to a battery of questions, such as: What facility problems are imposed? Will the present packaging area suffice? Will the area—space and layout-wise—permit the installation of special equipment? What special equipment will be required? What materials must be procured? Are approved sources of material readily available? Can the source readily supply the specification materials? Are there critical materials involved which will require the filing of government applications for priority ratings?

A question which is raised less frequently by the manufacturer who has considered diligently the packaging requirements of his contract than by the manufacturer who has failed to do so is the proverbial "sixty-four dollar question." It sounds something like, "Oh, why in the name of common sense did I ever accept a military contract?" All too frequently this situation arises because the people and departments concerned with packaging and shipping are

relegated to positions of relative unimportance. Consequently, the packaging section of the contract is reviewed in the back room, and under a dim light and, quite conceivably, by unqualified and inexperienced personnel.

### Size Variable

Assuming that the manufacturer has negotiated his contract and is about to initiate performance, he probably should attack first the details of preserving and packaging the product or products. In the aircraft industry we are concerned with units ranging in size from those so small that they almost literally escape the naked eye to those, like transport or bomber wing sections, that approximate the cubic feet of a one-bedroom apartment.

Size, however, is but one of the factors that form the basis for the determination of the method of preserving each product. Weight, characteristics, material, and finish are other factors which must be given consideration. The characteristics may simply be designated as sturdy, delicate, or fragile in each case. From the military point of view, the most important factors are the material and finish. The military's concern over them further delineates the major difference in packaging the product for the military and the commercial account.

All material deteriorates in time. Generally though, military supplies must withstand the most severe attacks of nature. The ability of these hazards to start deterioration varies in proportion to (1) the intensity of the hazard,

(Please Turn to Page 57)

Editor's Note—Both of the papers presented as a reader's service on these pages by DISTRIBUTION AGE were originally presented at the Fourth Western Packaging and Materials Handling Exposition and the Second Biennial Packaging and Materials Handling Institute in Los Angeles, Cal., Aug. 12-14.



**Y**OUR company is a rare one if your warehousing people have denied themselves the luxury of indulging in the popular warehousing compromise, "Let's just put this peak inventory here temporarily till we can find a better spot for it."

The "Let's put it here temporarily" philosophy is a popular one and, practiced in moderation, it is a sound one. In times of peak demands upon the warehouse it is well nigh a necessary one. But, the philosophy seems to be habit forming. Compromises have a way of becoming contagious. In many warehouses they have snowballed to the point that continuity of stock has been lost, and as a result, warehousing and materials handling costs have gone way out of bounds.

Add this philosophy to a plant's normal growing pains, and to the continuing personnel and inventory changes, and you can usually find that plant's management either thinking or saying, "This warehousing problem is growing like an octopus. Some of these days when things settle down a bit, we've got to rearrange the entire layout so there's continuity to the whole thing."

The idea of waiting until "things settle down" is well and good except that that may involve a long wait, and probably when it does occur, operating budgets will be pared down so far that top management would not be receptive to any major move that would cost money. Reorganizing a warehouse and putting in more efficient materials handling equipment costs money . . . money that usually makes money over the long haul.

In a good percentage of the plants, tomorrow is a good day to sit down around the conference table to talk over the problem. Day after tomorrow is a good day to pick the man who will push through the project to completion. Next Tuesday would be a good day to submit the whole thing for the approval of top management, and next Friday would be ideal for launching the project.

No matter where your plant is or what its function is, the first thing you need to know is:

**If your plant tackles its warehousing problems on a day-to-day basis, chances are it's costing you time and money—you need reorganization**

## **How to Restyle Your Plant Warehouse**

**By Lloyd Moore**

### **PART I**

#### **What Space Do We Need?**

That question will almost always draw a long and loud response, "More! More!" from the people who are charged with the responsibility of plant warehousing. Quite often their pleas for more space are in order. In just as many cases, the same amount of space, or less, used more efficiently will accommodate the inventory that now has the walls bulging.

**STEP 1.** Here are some questions that should be asked and answered realistically at the outset of this undertaking:

... Can the level of any inventory item be reduced without impairing production efficiency?

... Can any items be eliminated?

... Can the heavier, more space-consuming numbers be purchased more frequently, thereby releasing valuable stocking space?

... Is the ceiling height in the warehouse being used to best advantage?

**STEP 2.** Having arrived at the practical minimum for each inventory item, these items should then be listed on a form similar to the one shown in Fig. 1.

Merely listing the inventory is a chore, but it is the foundation to the whole space estimate, and it should be done with as much accuracy as possible.

In the first column, "Item," insert the inventory item. Then in the next column write in the average stock level for that item.

SPACE ESTIMATE

Building # 536A Floor # 4th Area New Wing

ITEM	AVERAGE STOCK LEVEL	PEAK INVENTORY	STOCKING FACTOR	SPACE REQUIRED
Rope, wire, 3/4 inch	84 rolls	90 rolls	1.5	60 sq. ft.
Room, #6, 55 gal drums	700 dr.	900 dr.	1.2	750 "
Rate 3 lb.	1321	1350	1.33	1015 "

Fig. 1: Use of this form highlights inventory levels that can be reduced or stocked more efficiently, and items demanding fluid space allotments

Fig. 2: Adding the figures in the right column gives the net stocking space needed. Small feeder aisles are included, main aisles excluded

Trailer, Tar, #12, 55 gal

Trailers, 2 wheel, model 1385

Track, 6", 2 ton cap

ITEM	AVERAGE STOCK LEVEL	PEAK INVENTORY	STOCKING FACTOR	SPACE REQUIRED
Trailer, Tar, #12, 55 gal	26	30	1.2	20
Trailers, 2 wheel, model 1385	1196 sec.	2052 sec.	.5	4104 sq. ft.
Track, 6", 2 ton cap				32,096 sq. ft.

NET SPACE REQUIRED - (Feeder aisles included - Main aisles excluded.)

The next column, headed "Peak Inventory," is intended for the maximum inventory of that item that you normally encounter during a typical year. Usually this figure is slightly above average for some items, but is a great deal larger for other items . . . hence this additional column. It makes it easy to single out items that are subject to wide variations in stock level so that they can be located where overflow space is available.

Few plants can afford the luxury of planning their space on the basis of peak requirements, but those requirements should be known. It is wise to plan for average inventories with a sufficient allowance for the bulging of certain items during certain periods.

### The Challenge

STEP 3. The "stocking factor," expressed simply, is "How many of this item can be stocked in a square foot of floor space?" Arriving at these factors requires a hike through the plant to challenge the current stocking method for every item.

... Can we tier the item higher?

... Can it be stocked tighter?

... Can we stock it in combination with another item so better use of headroom is practical?

... If the item were moved elsewhere would floor load capacities permit higher stacking?

... Would the installation of overhead or mobile tiering equipment make possible more efficient use of stocking space?

If a real, honest-to-goodness, appraisal of current stocking methods is made, the study usually highlights the fact that substantial amounts of floor space can be freed by changing the stocking method or acquiring handling equipment that makes possible more efficient use of floor and vertical space.

An offshoot of the "challenging hike" is the problem, "If we do switch to the new and more efficient stocking method, how many units of this item can we stock in a square foot of floor space?"

### In and Out Factor

Presuming that you will stock each bay solid is unrealistic. An "in and out" factor must be included. A factor of 15 per cent is a reasonable one with most types of inventory, so you might presume that 15 per cent of the net stocking space will always be idle because of "in and out."

The calculation of the stocking factor should also include an appropriate allowance for "feeder aisles" that serve that stocking area. Space for main aisles will be determined in a subsequent calculation; only "feeder aisles" should be figured in this calculation.

STEP 4. Filling in the last column, "Space Required," merely involves dividing the average inventory for each item by the stocking factor. In cases where peak figures are considerably above the average figures, insert in parentheses the space required to accommodate the peak level.

Adding the figures in this column (excluding the peak space factors in parentheses) gives the grand total of the net stocking space needed, see Fig. 2.

This total figure is practically useless until the next step, laying out the main aisles, has been done. If your space analysis has been comprehensive and accurate, you are prepared to go on to that step.

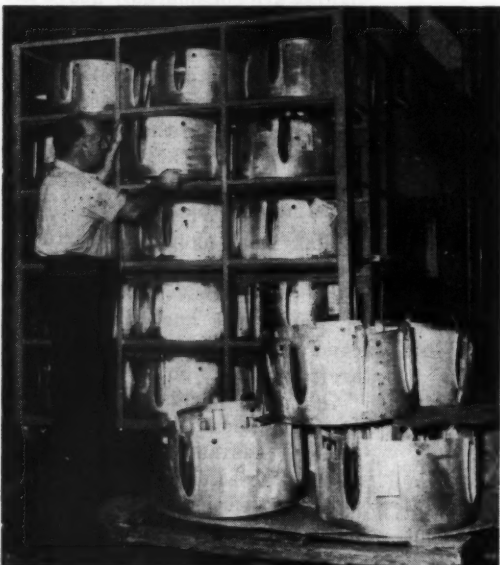
In Part 2 of this article, scheduled to appear in the December issue of DISTRIBUTION AGE, I will discuss the actual space layout, selection of efficient handling equipment, and a consideration of warehouse paper work.\*

Specially designed compartmentalized racks protect parts from damage, conserve factory space, and promote ease of handling in metal products plant



These combustion chambers for a J-47 jet engine need special care to protect precision surface

Separate compartments in this specially designed conveyance offer protection to jet engine cowl



More than 200 jet engine struts can be stacked in this mobile rack, which protects parts and saves space

## Custom-Built

**M**ODERN design applies to materials handling as significantly as it does to the streamlining of an airplane. This fact has been clearly established through a handling system recently installed by Ryan Aeronautical Co., in San Diego, Cal.

As the production of metal products at Ryan mounts, the efficient movement and storage of parts as they reach the advanced finished stage become increasingly important. Three major factors must be taken into consideration—protection of parts from damage or marring, conservation of factory space and ease of handling.

### Tote Cart Handling

The most obvious means of transport for comparatively small parts is the tote cart, rectangular or square open-topped box on wheels. The same cart which might be used for collecting scrap has, in the past, been employed for moving valuable finished parts to the Shipping Department. As the carts were pushed by workers, there was ever-present danger that in jostling against each other, the odd-shaped pieces would suffer damage.

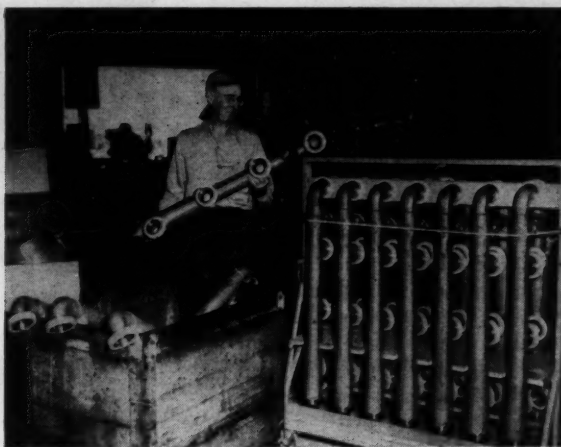
The method of loading was strictly up to the ingenuity of the individual. Since the carts were not made to fit the parts, the parts had to be dovetailed as well as possible to fit the carts. And in such cases as the exhaust system parts for the Continental tank engines, bulky section had to be placed on top of the carts, overhanging on both sides. The mechanical design group of Ryan's Plant Engineering Department, has come to the rescue.







Edges of rings for the world's largest fuel tanks don't rub against each other in this new style separating rack



Header sections for Pratt & Whitney jet engines racked vertically as shown, right, no longer jostle in carts

## Racks Fit Handling Needs

"Custom-tailored" racks in various shapes, but all so compactly arranged that a minimum of space is needed to accommodate a maximum of parts, have been produced by the mechanical maintenance department to specifications of plant engineering.

Some, such as those for the General Electric J-47 engine struts, have a "bird-cage" appearance. On

others are rubber-encased supporting hooks that give them a similarity to clothes-trees.

### Compartment Style

The general principle is that each piece has its own allotted compartment to prevent surfaces from rubbing against each other. But the separation is performed with amazing space economy.

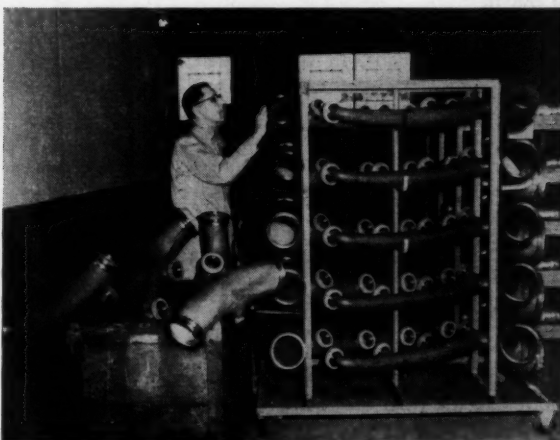
Thus, one of the "bird cages" can hold 204 J-47 struts, several times more than a tote cart which occupies almost as much actual floor space.

And as for ease of handling, tote carts are "man-handled," while the newly designed racks can be pulled, several at a time, by a small conveying truck to inspection, shipping and final packing. •

Exhaust system parts for the famous General Patton M-46 tank can be carried in large quantities in New Ryan rack



Neat storage of exhaust system sections for P&W R-4360 engine is shown in rack, right, contrasted to cart handling



**A** MATERIALS HANDLING system utilizing powered industrial trucks has effected substantial savings in several ways during the past 18 years for Bakelite Co.'s Bound Brook, N. J., plant.

Some of these savings have been:

1. Reduction, by nearly 50 per cent, of manpower assigned to materials handling, and re-assignment to operations elsewhere in the plant.
2. Reduction in man-hours materials handling, with a greater quantity of materials handled in the same work period.
3. Better utilization of available storage space in the existing warehouse structure.
4. Faster flow of materials, from time of receipt through process, and into outward shipment, thus insuring quicker shipment service to customers.

#### 53 Trucks in Service

A fleet of 53 powered industrial truck units work round-the-clock. Both storage battery electric and gasoline-powered industrial trucks are being operated in the plant's fleet of predominantly fork - lift types.

The newest units have 42-in. forks, and each can raise a load to a maximum height of 130 in. The trucks also have a 4,000-lb capacity; a rating standard for all fork-lift trucks used at the Bound Brook plant. Several high-lift platform trucks also are used, including the plant's original truck of this type, placed in operation in 1933. This truck has a rated capacity of 2,500 lb.

In addition to the movement of incoming materials, in some cases over a route of about 1,000 ft, the powered industrial trucks are used to handle materials in process, and also in loading outbound shipments. These loaded carriers are either highway trucks or railroad box cars.

Nine trucks are used in production lines, and for intra-plant handling. Others are used in warehouse operations within plant buildings, and still others handle materials in yard storage.

Nearly every item handled is



Vinylite plastic sheeting is placed in storage in six-roll pallet loads

## Bakelite Boosts

palletized. Some 10 per cent of incoming materials arrive on pallets, with about the same amount palletized for outbound shipments. Nearly all the pallets are two-way, double-faced, wood construction. Experiments are being made to ship some products in expendable box or case-type pallets of heavy kraft board.

Approximately 25 per cent has been cut from shipping costs through the use of expendable pallets, warranting the continued experimentation. Palletized shipments, however, are being limited to customers and to transportation companies who have suitable lift equipment.

#### Loading Methods

Several methods are followed in loading highway trucks with shipments of finished products. In some cases, palletized unit loads of 40 bags of various molding materials are placed by the fork trucks directly into the body of the highway truck.

In other cases—where customers do not want shipments in palletized loads—the bags are manually loaded when the fork truck will deposit a pallet load of bags on portable roller platforms in the trailer.

To keep loading crews from stooping to remove the bags for manual stowage, several empty pallets are placed on the platforms, with the palletized load deposited atop them. This has also speeded handling.

#### Handling Output Up 300%

Before using powered industrial trucks, the Bakelite plant had a 40-man handling crew. Today, with a force of only 22 men—including supervisory personnel—more than three times as much material is handled in a single shift as was handled by the 40-man crew in round-the-clock operations. The plant works on a continuous basis, seven days a week. The trucks are used an average of 20 hours a day.



Palletized goods in warehouse show variety of materials to be handled

## Equipment Performance Report

Industrial truck system has  
freed workers, reduced man  
hours, upped storage space

# Handling 300%

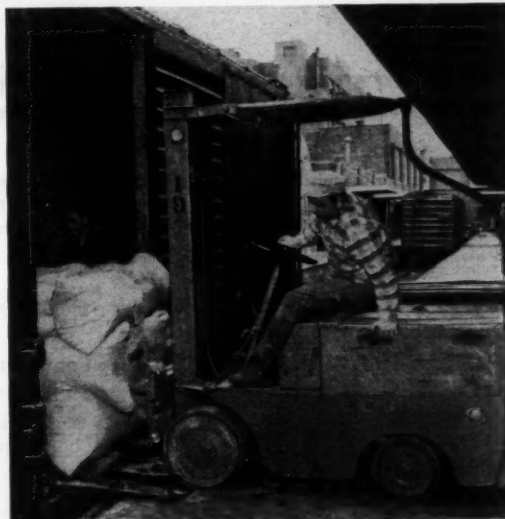
Preventive maintenance is an important factor in increasing truck life. The machines receive periodic inspections and overhauls. Maintenance crews keep the fleet in top condition and truck operators report any irregularities in the performance of their equipment.

David H. Burton, assistant department head of the receiving, warehousing and shipping division of Bakelite, has this to say of the modern MH system. "There have been savings in space and labor since we assigned handling operations—as completely as possible—to the powered industrial trucks.

"There also has been an added measure of safety for our employees. The strains that accompanied lifting are gone. There is less damage to the packages of incoming and outgoing materials. As an additional measure, we have placed overhead safety guards on all of our trucks, insuring a safe and profitable operation."\*

Right: Woodflour bags in "locked pattern" are taken out of car

Below: After placed in truck, this load goes on a roller platform





Length of usefulness of power drives depends on care and attention they receive through a systematic maintenance program kept on a schedule

## TROUBLE CHART

The chart on the right was compiled from a host of manufacturer's maintenance tips. Clipped and posted at a conspicuous spot in your maintenance shop, it may serve as a money-saving reminder.

# Preventive Maintenance For Power Drives

**T**HE recent war and current defense effort have brought preventive maintenance into sharp focus.

More often than not, equipment and material "down time" can be traced to power drive failure. Such failure, in turn, usually results from neglect—improper installation and application.

With the help of manufacturers and their societies, DISTRIBUTION AGE has prepared a simple Do and Don't maintenance outline for power drives. Through its use, a few moments spent in maintenance each day can be expected to return thousands of additional hours of uninterrupted service.

### V-BELT DRIVE

**Alignment.** Poor alignment is one of the major causes of belt slippage, overheating, distortion and final failure. To align the sheaves correctly use straightedge or string. All driving and driven sheaves must be well matched to



prevent undue wear of sheaves and belts. Too small or too large grooves will cause rapid wear.

**Narrowed Width.** This is caused by abrasion dust which wears down the sidewalls of the belts and, to a lesser extent, the sides of the grooves of the sheaves. As a result, the belt rides on the bottom of the groove, slips, and loses its proper shape and size. Excessive tension may offer temporary help, but it is best to provide dust guards.

**Contamination.** Water, oil and other liquids cause belts to shrink or swell, putting excessive loads on belts and sheaves. It is best to



provide protective guards on such installations where it isn't possible to remove the source of trouble.

**Damaged Inner Cords.** If the belts are pried over the sheaves when they are put on, the inner cords may be damaged or broken.



It is best to loosen the motor and take up the slack to adjust the proper tension.

**Improper Tension.** Only a V-belt which grips the sheave grooves properly and without slipping will run smoothly and have no worn spots. Continued slippage will not only transmit reduced power, but will soon have to be replaced.

**Overheating.** If belts are operated in hot and humid locations, the temperature should not exceed 150 deg F. Excessive heat causes



slippage and deterioration. Well ventilated guards are a must in hot, humid locations.

**Worn Spots.** Grease, oil, fumes, oil vapors, gases and other foreign matter will make belts slip and wear out too quickly.

(Please Turn to Page 51)

# TROUBLE . . . WHAT TO LOOK FOR—HOW TO CORRECT IT

## TROUBLE

## POSSIBLE CAUSE

## SUGGESTED REMEDIES

### V-Belt Drive

Loss in driven speed	Improper ratio—Belt slippage—Improper tension	Check ratio of sheave diameter against ratio of rpm—Adjust tension
Unequal stretch	Unequal coefficient of friction—Internal breaks—Broken cords	Check coefficient—Replace belt
Localized wear	If narrow, pulley spin—If full, internal breakdown and resultant swell	Check cross section dimensions—Replace belt
Excessive stretch	Break-in slack—Overload—Internal breaks	Check actual amount of take-up since installation—Reduce overload—Replace belt
Transverse bottom breaks	Normal failure	If premature, check for small sheaves
Separation	Normal failure	If premature, look for small pulleys or excessive tension
Opening of envelope seams	Introduction of rubber solvent or oil	Install guard or remove cause
Abnormal envelope wear	Abrasive condition—Worn sheave—Improper sheave angle—Slip—Chemical fumes—Obstructions—Heat	Remove or replace causing conditions
Belt soft or swelling	Introduction of rubber solvent or oil	Remove cause
Belt envelope hardening or cracking	Excessive heat—Chemical fumes	Clean belt—Protect drive with enclosure if possible—Use type belt best suited for conditions

### Chain Drives

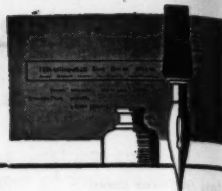
Excessive noise	Misalignment—Too little or too much slack—None or improper lubrication—Loose casing or bearings—Chain or sprockets worn	Check alignment and correct—Adjust centers for proper slack—Lubricate—Draw up all bolts and brace casings if necessary—Reverse or replace if necessary
Wear on chain sidebars and sides of teeth	Misalignment	Remove chain and correct alignment
Chain climbs sprockets	Poorly fitting sprockets—Severe overloads—Chain worn over-length	Turn sprockets and chain or replace if necessary—Reduce load if possible—lubricate driven machine
Broken pins and rollers	Chain speed too high for the pitch—Shock or suddenly applied loads	Use chain of shorter pitch of equivalent or greater strength—Avoid shocks
Chain clings to sprockets	Incorrect or worn sprockets—Heavy and tacky lubricants	Turn sprockets and chain or replace if necessary—Clean chain and sprockets and lubricate correctly
Chain whip	Long centers or high pulsating loads—Too much slack	Reduce centers when possible
Chain gets stiff	Misalignment—Improper lubrication—Excessive overloads—Corrosion	Check alignment and correct—Remove chain, clean, and relubricate—Reduce load when possible
Broken sprocket teeth	Obstruction—or foreign material in chain case	Check chain clearances—Drain and clean chain case
Cotters come out	Vibration and centrifugal force	Turn chains over so heads of cotters are on inside nearest shafts

### Flat Belt Drives

Slips and squeals	Belt too loose—Insufficient capacity—Pulley crown too high, causing increased wear of narrow center section of belt—Surface too dry and shiny	Increase belt tension—Use thicker or wider belt—Decrease crown taper to 1/8 in per ft—Apply suitable dressing
Excessive stretch	Capacity too low	Use thicker or wider belt
Runs crooked	Stretched on one side by forcing over pulley—Ends not squared when joining—Unevenly stretched by running on misaligned pulleys—Loose belt unevenly stretched by running up on flanged or step-cone pulley	Repair damaged belt section or replace belt—Eliminate physical cause when installing
Runs off pulleys	Misalignment of pulleys or shafting (if belt continues to run off same side when belt is turned end for end)—Crooked belt—Pulley crown too high	Eliminate cause—Repair belt—Decrease crown taper to 1/8 in per ft
Runs to one side of driven pulley	Belt too slack—Load too great—Crooked belt (if it runs to opposite side when turned end for end) Misalignment of pulleys or shafting	Increase belt tension—Use thicker or wider belt—Repair belt—Eliminate cause
Whips and flaps	Pulsating load or power source—Shaft, motor, or machine not rigidly supported—Lopsided pulley—Bent shaft—Too much or too little belt tension	Eliminate cause where possible—Try change of speed or addition of flywheel to smooth out load
Weaves back and forth across pulley	Wobbly pulley—High spot on pulley—Belt extremely crooked	Correct faulty condition—Repair or replace belt
Cracked outside ply	Excessive belt tension—Pulley diameter too small	Reduce tension—Provide proper pulley for belt thickness
Cracked inside ply	Burning caused by excessive slip	Treat as for slips or squeals
Peeling grain	Excessive slip—Improper belt dressing—Chemical fumes or oil	Clean belt with commercial solvent, scrape off any loose grain and use suitable dressing—Provide guards if possible, and use type belt best suited for condition

# FREE

# Literature



For prompt service, use the postage-free postcard provided here for your convenience in securing **FREE LITERATURE** and **NEW PRODUCTS** information described in this issue of **DISTRIBUTION AGE**. All material **FREE**, unless otherwise noted, as in the case of books.

## Spot on the Map

Standard Pressed Steel has prepared a colorful booklet, complete with maps and information on SPS, its home town and the entire Heartland of the East, in which SPS is located.

Circle 50 on Service Card, Page 36

## Excellence in Electronics

Products of Raytheon Mfg. Co. are shown in an illustrated, color catalog published by the firm. A brief history of the company and photograph layouts of its plants are included.

Circle 51 on Service Card, Page 36

## Pressure Sensitive Tape

How 14 Scotch brand pressure sensitive tapes can be used for various holding and bundling tasks is shown in a new 8-page folder available from the Minnesota Mining and Mfg. Co.

Circle 52 on Service Card, Page 36

## Comparison Chart

A handy Fork Truck Comparison Chart is available from Lewis-Shepard Products, Inc. The chart is designed to permit the potential fork truck buyer to make comparisons of various makes.

Circle 53 on Service Card, Page 36

## Measuring Space

New-Era Products has published a brochure describing its new Space Scale, for measuring and calculating space. It is particularly useful for calculations in storage, inventory, space allocation and estimating of materials.

Circle 54 on Service Card, Page 36

## Frozen Food Plants

The United States Department of Agriculture has available a 61-page booklet on "Planning a Wholesale Frozen Food Distribution Plant." It is a comprehensive study, giving information on a variety of subjects running from site location to distribution schemes.

Circle 55 on Service Card, Page 36

## 25th Anniversary

Celebrating its 25th year of service, Air Express has prepared a color folder highlighting points of progress over the years since its inception in 1927.

Circle 56 on Service Card, Page 36

## Industrial Truck Line

Catalog 54, a new 8-page booklet in color released by the Baker-Raulang Co., describes and illustrates that manufacturer's line of industrial trucks and cranes. One unique feature of the new catalog is a section, "How to Select the Right Fork Truck for Your Handling Job."

Circle 57 on Service Card, Page 36

## FILMS

### Wings for Industry

Wings for Industry, prepared by Slick Airways, offers a graphic portrayal of the airfreight industry. The 14-min., 16 mm, color-sound movie is narrated by Jimmy Stewart, Hollywood actor.

Circle 58 on Service Card, Page 36

### Motor Transport Industry

A new movie featuring the Motor Transport Industry is available through state trucking associations and branches of Fruehauf Trailer Co. "The McGurk Way" traces the history of American transportation and its problems through four generations of the McGurk family.

Circle 59 on Service Card, Page 36

### Wheels of Progress

"Wheels of Progress," a documentary story produced by Pacific Intermountain Express, has been released for public showing. The 22½-min. film depicts the story of progress of overland transport. The film has been in production for more than a year.

Circle 60 on Service Card, Page 36

## Operating Instructions

Hyster Co. has prepared an interesting and informative manual, "How to Operate a Lift Truck." The booklet was prepared after a 2½-year study in attempt to alleviate the shortage of trained machine operators.

Circle 61 on Service Card, Page 36

## Stock Sprocket Wheels

A new catalog of more than 200 sizes of cast tooth sprocket wheels available from stock has been published by Link-Belt Co. The book tells how to select stock sprocket wheels for prompt delivery, accurately fitted to the chain.

Circle 62 on Service Card, Page 36

## Anti-Corrosion Coating

Literature is available describing Ricwilite corrosion resistant coatings for industrial equipment and piping, a product of Ric-wil Plastic Coating & Mfg. Co.

Circle 63 on Service Card, Page 36

## Power Shovel

A large picture book of its Model 255-A Power Shovel has been published by Harnischfeger Corp. The 24-page, color bulletin illustrates design features and various components of this ¾-yd machine, which converts for seven different services.

Circle 64 on Service Card, Page 36

## Bag Holder Line

Richardson Scale Co. announces a color brochure covering four different types of bag holders. The holders secure bags to hopper outlets during filling.

Circle 65 on Service Card, Page 36

## Saving Manpower

SDPA has issued a new leaflet, "Saving Manpower in Industry," discussing the most widely used methods in saving manpower by work simplification and elimination of some work steps.

Circle 66 on Service Card, Page 36

(Please Turn to Page 36)

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# Your shipment never leaves our hand

Too many hands spoil the broth. The more hands on your shipment, the more susceptible it is to *mishandling*. But, if your shipment is in one firm hand *all the way*, you are assured of maximum shipping satisfaction. It reduces risk, fixes responsibility, makes tracing and claims infinitely easier, and cuts bookkeeping costs appreciably. On our part, we regard our responsibility as a trust. We wrap your shipment with safeguards to assure proper and prompt delivery... from the time it leaves your hand... till the time it leaves ours... at destination. Let our hand take your next shipment... all the way.



"The Best Way"



A COMPLETE TRANSPORTATION SERVICE

## NATIONAL CARLOADING CORPORATION

JUDSON-SHELDON DIVISION

JUDSON FREIGHT FORWARDING DIVISION

19 RECTOR STREET, NEW YORK 6, N. Y.

Serving 30,000 communities through more than 100 stations in the U. S. and agents in principal foreign countries.

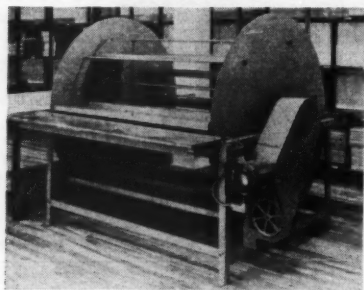
Circle No. 110 on Card, Page 35, for more information

# DA NEW Products

FOR FURTHER INFORMATION USE READERS' SERVICE

## Packaging Table

J. A. Emilius & Sons announce development of a new Revolving Packaging Table. Originally designed for use in the candy industry, the table is adaptable to any packaging operation involving a variety of small items boxed in a single container. A 1/3 hp motor with reducing units drives the revolving mechanism at the rate of one revolution in five minutes. Packing personnel, three on each side of the machine, box the items from stock containers on the carrying trays.



Designed as a substitute for standard conveyor lines in limited space operations, the revolving table has boosted production an average of 300 per cent on all installations.

Circle 1 on Service Card, Page 36

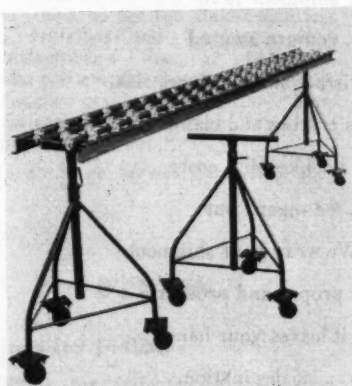
## Unpalletized Handling

A new clamp, enabling efficient handling of unpalletized cartons in a wide variety of sizes, is available from Yale & Towne Mfg. Co. The clamp arms are articulated to equalize pressure on the cartons. An adjustable regulator on the hydraulic system permits clamping pressure adjustment.

Circle 2 on Service Card, Page 36

## Conveyor Supports

Speedways Conveyors Inc. has marketed a new tripod conveyor support with 3-in. hard rubber cast-

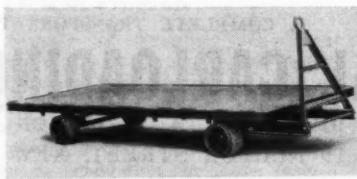


ers. The conveyor does not require bolting to the stand. It is available in three models and can be supplied for special height adjustments.

Circle 3 on Service Card, Page 36

## All-Steel Welded Trailer

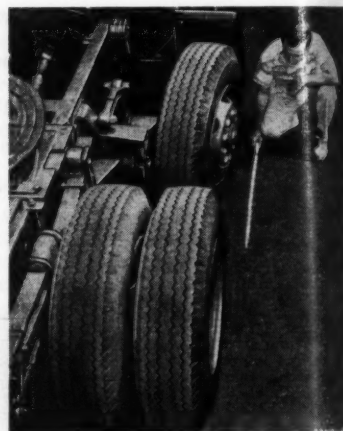
Mercury Mfg. Co. announces production of a new all-steel welded trailer of 20,000-lb capacity, and designed particularly for dock and yard service. The trailer has a deck size 7 ft by 14 ft and deck height is 22½ in. It can be built to meet special requirements in size.



Circle 4 on Service Card, Page 36

## Steering Pusher Axle

White Motor Co. has introduced a new Steering Pusher Axle. It is a lightweight, single-wheel axle, mounted ahead of the driving axle. It weighs only 1,350 lb, with 10.00 x 20 tires and steers in coordination with the tractor's front axle steering. White tractors with the Steering Pusher will legally haul approximately 4,000 lb more payload than comparable tractors. The unit is interchangeable.



Circle 5 on Service Card, Page 36

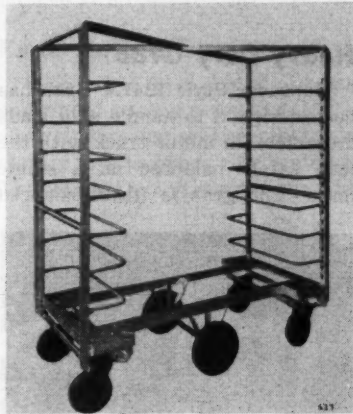
## Overhead Fork Lift Guard

Maximum protection for fork lift truck operators in high-stacking multi-unit loads is assured with the Towmotor Overhead Guard, a standard lift truck accessory produced by Towmotor Corp. Constructed of 1½ in. and 2 in. steel pipe, the guard is recommended on all trucks with a lift exceeding 144 in.

Circle 6 on Service Card, Page 36

## All-Welded Shelf Truck

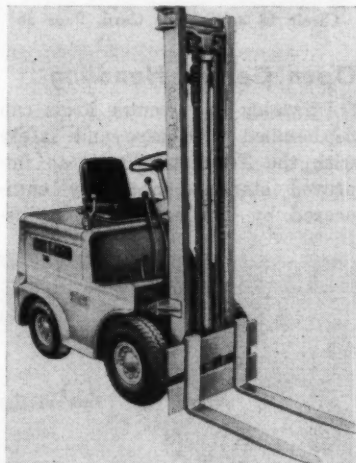
Towsley Trucks, Inc., announces availability of its all-welded metal frame Wareboard truck. One-piece shelf brackets are easily removed. Studs on brackets fit into keyhole slots for quick shelf adjustment. There are no bolts to remove and shelf supports extend 15 in. from corner posts.



Circle 9 on Service Card, Page 36

## Improved Fork-Lift

Several important improvements feature the new Yardlift "20," pneumatic-tired fork truck of the 2000-lb capacity, announced by Clark Equipment Co. Smooth tilt

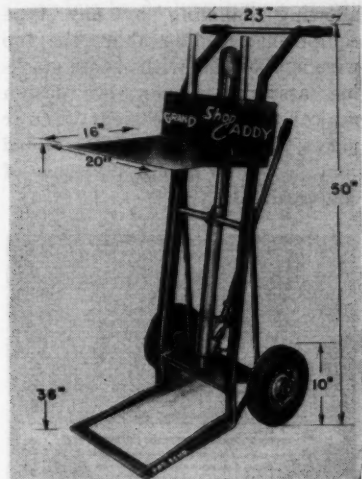


action and upright stability are proved by twin, double-acting tilt cylinder, which replace the single cylinder formerly used. Other improvements include a new instrument panel, quick-change clutch and Elliott type steering axle.

Circle 10 on Service Card, Page 36

## Pallet Lift Stacker

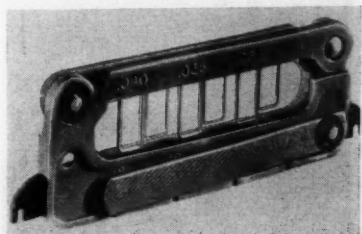
A two-wheel hand truck which also lifts heavy loads by means of a manually operated hydraulic lift has been introduced by Allied Manufacturing and Sales Co. With the Shop Caddy one man can move and lift kegs, boxes, dies and any small object weighing as much as 500 lb. The hydraulic lift is operated by either hand or foot lever. The balance with load can be adjusted to remove most of the weight from the operator for ease of handling. Model 436 lifts 300 lb to a height of 36 in., and Model 454 lifts 500 lb to 54 in.



Circle 11 on Service Card, Page 36

## Spark Plug Tool

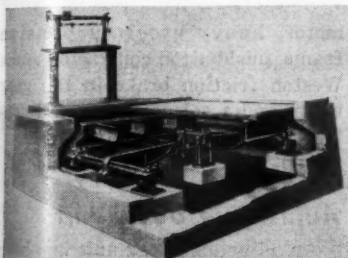
A multi-purpose tool for spark plug service is available through Champion Spark Plug Co. Four tools in one, it contains stainless steel wire gap gages from .015 to .040 in., two gap adjusting slots for electrode bending, a precision file for refacing sparking areas, and four gasket reject slots for determining the utility of used spark plug gaskets.



Circle 12 on Service Card, Page 36

## Axle Load Scales

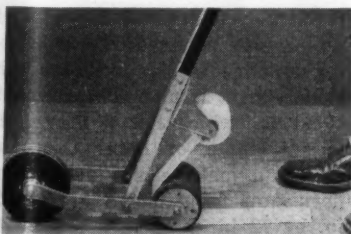
The Howe Scale Co. announces its complete line of heavy-duty axle load scales. The scales are designed for accurate axle load weighing to comply with state laws and protect commercial carriers from highway stoppages for overloading, unnecessary load transfers and costly fines.



Circle 7 on Service Card, Page 36

## Lane Marking Applicator

A new lightweight applicator for applying lane marking tape to industrial floor areas has been announced by Minnesota Mining & Manufacturing Co. The new unit is designed to semi-automatically apply strips of Scotch brand plastic tape to mark trucking lanes, aisles, storage areas and safety zones.



Circle 8 on Service Card, Page 36

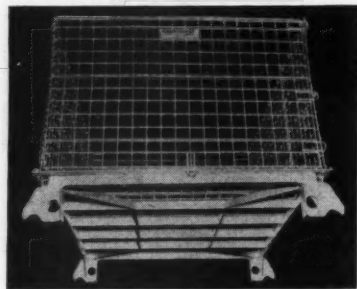


# DA NEW Products

Continued from previous page

## Clearview Cargotainer

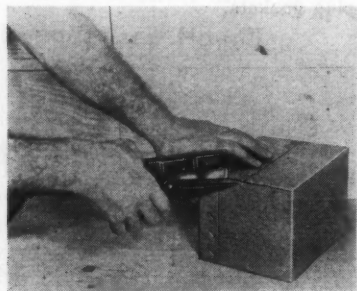
Pittsburg Steel Products Co.'s new Clearview Cargotainer has five new features. Center legs have been eliminated in the new model, allowing handling by any type equipment; loading above the top wire is allowable with secure stacking assured; a new leg design makes stacking easier; corner plates resist shock, and five folded containers now occupy the space of one unfolded.



Circle 13 on Service Card, Page 36

## Stapling Plier With Blade

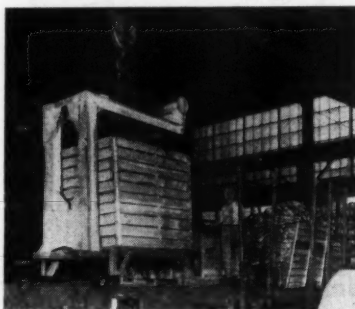
Bostitch has introduced a new stapling plier with piercing blade, model P-6-8P. It is used essentially for setting up and sealing corrugated containers. The blade is quickly and easily inserted through the container fold, making a small slit. A squeeze of the handles drives and clinches a strong staple.



Circle 14 on Service Card, Page 36

## Heavy Duty Grab

Mansaver Style 1247M Grab has been designed to handle skid loads from floor to motor truck with the load safely balanced on a single hook. The grab is itself balanced

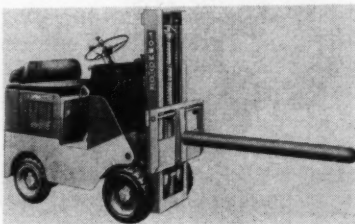


so the crane operator can remove the hook with ease. It eliminates the need for leveling platforms and shows perfect coordination between electric truck and crane.

Circle 15 on Service Card, Page 36

## Open Center Handling

Unwieldy open center loads can be handled with ease and safety with the Towmotor Ram, an improved standard accessory engineered by Towmotor Corp. Sus-

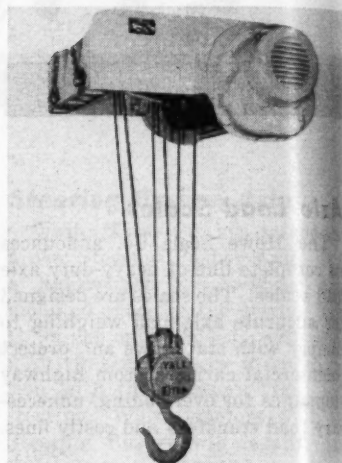


pended from the fork support bar, the ram promotes rapid handling of any open center load. Loads can be picked up and deposited at any height within the lifting range. It is interchangeable with standard forks.

Circle 16 on Service Card, Page 36

## Deck Type Hoist

New deck type Cable King electric hoists, designed for top mounting in double-girder bridge cranes, are available from the Yale & Towne Mfg. Co. The units, available in capacities of from one to 15 tons, feature compactness of design, triple-reduction spur-gear drive, totally enclosed fan-cooled

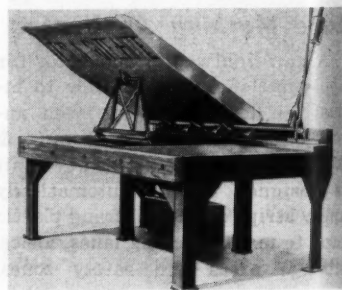


motor, heavy steel suspension frame, pushbutton contractor and a Weston friction brake in the gear train, and a solenoid operated contracting drum type motor brake.

Circle 17 on Service Card, Page 36

## Adjustable Dock Unit

An adjustable dock unit has been added to its line of manually operated Rite-Hite units by Loomis Ma-

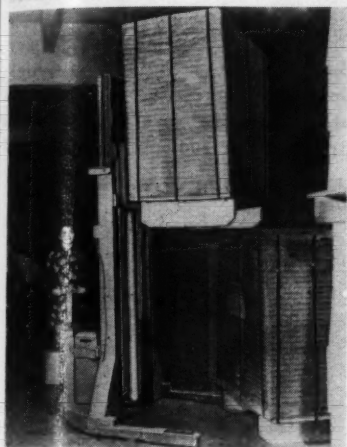


chine Co. The new self-contained unit can be recessed into an existing dock or placed at dock edge with equally good results. The driver of a carrier which has a floor level either higher or lower than the dock can make either vertical or horizontal adjustments of the 72 in. by 72 in. plate in a matter of seconds.

Circle 18 on Service Card, Page 36

## Hi-Stradler Lift

Revolator Co. has marketed the Go-Getter, an electrically operated lift for use in narrow aisles. Design incorporates a hi-stradler lift with no overhang. For use with 48-in. square pallets an aisle as narrow as 6 ft can be used, since the aisle need only be 2 ft wider than the load length. The base of the

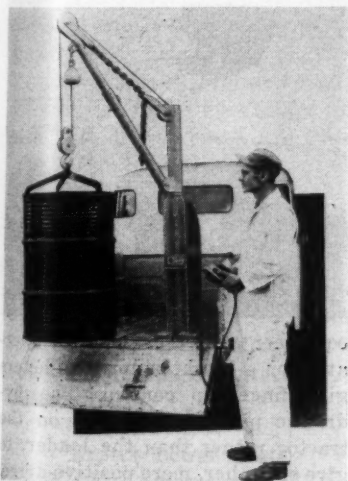


machine straddles the pallet and the forks are thrust under the pallet to do the lifting.

Circle 19 on Service Card, Page 36

## Electric Loading Hoist

A portable electric loading hoist installed in trucks and operating off the battery has been introduced



by the Hoist Division of Rushlight's, Inc. It has a hoisting capacity of 1000 lb and features adjustable boom height and length, 360-deg swing, remote pushbutton control and automatic braking at any point.

Circle 20 on Service Card, Page 36

## Rat-Proof Bag

Fulton Bag and Cotton Mills have announced development of a new rodent repellent treated bag available in cotton goods or burlap. Experiments over a five-year period prove the secret formula's value for use in grain houses or other installations where rat damage is a serious problem.

Circle 21 on Service Card, Page 36

## Knee Action Casters

All Steel Welded Truck Co. has announced a new knee action, shock absorbing caster engineered for a variety of handling applications. The Clark Duoflex Caster may be

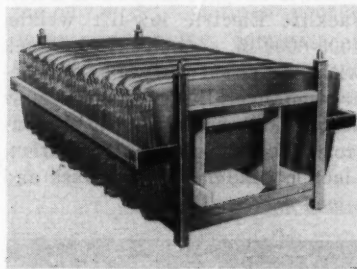


used to replace present wheeled equipment. All standard wheels are interchangeable. Shimmy and fish-tailing are eliminated because wheels are kept in contact with the floor, and reports show use of the new units lead to savings in maintenance costs.

Circle 22 on Service Card, Page 36

## Portable Stock Racks

Standard portable stacking type stock racks, manufactured by Equipment Mfg., Inc., are now equipped with bayonet cut-outs in the uprights for attaching side



rails. Both flush and extended type rails are available. The rails are of hard wood with formed metal fittings. The attaching mechanism involves no bolts or loose parts, and rails can be locked in position or disengaged by lifting and tipping.

Circle 23 on Service Card, Page 36

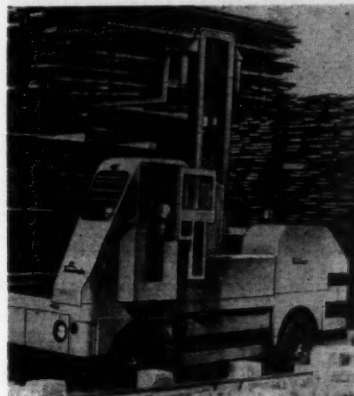
## Lowering Lever Jack

A light-weight ratchet lowering lever jack with an aluminum housing, from Templeton, Kenly & Co., the equipment has a 10-ton capacity but weighs only 42 lb. The lever jack has a minimum height of 20 1/2 in., a 12-in. lift and a broad toe lift with a minimum height of two in.

Circle 24 on Service Card, Page 36

## Hydraulic Traveloader

A new Hydraulic Traveloader for lumber handling has been introduced by Lull Mfg. Co. It loads itself direct from flat car and travels at road speeds up to 30 mph. Carrying loads lengthwise, it can

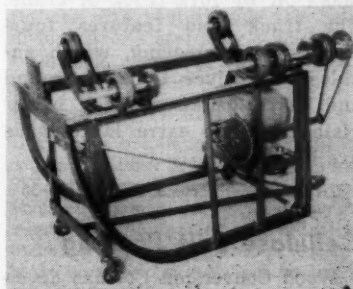


operate in 10-ft aisles and only slightly wider turning areas. Traveloaders are available in 10, 15, and 30,000-lb capacities.

Circle 25 on Service Card, Page 36

## Portable Drum Rotator

Structural improvements in Model 200 Portable Drum Rotator have been announced by Morse Mfg. Co. Designed to agitate or mix drum contents up to 500 lb in 30 to 55-gal drums, the Rotator has been strengthened by a second horizontal steel brace which gives additional support to the idler wheels.



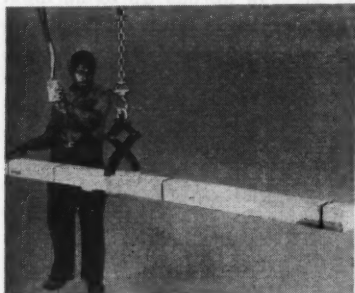
Circle 26 on Service Card, Page 36

## New Products

(Continued from Preceding Page)

### Lightweight Grapples

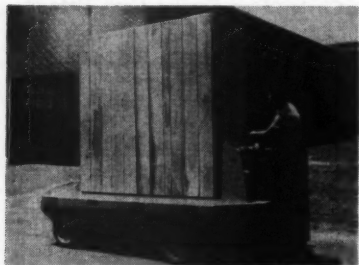
Eastern Brass & Copper Co., Inc., has developed a new line of grapples which combine light weight, safety, flexibility and efficiency. An important feature is the hardened steel points on the inner sides of the two arms which grip the edge of the load more tightly as load weight increases. One all-purpose model weighs only 31 lb, but can handle one ton without overload.



Circle 27 on Service Card, Page 36

### Heavy Duty Carriers

New, extra heavy duty load carriers, in capacities up to 36,000 lb are available from the Yale & Towne Mfg. Co. It is designed to handle large, bulky industrial loads such as crated machinery.



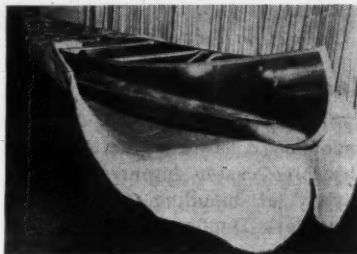
Loads are placed on the truck or taken off by fork truck or crane. The truck also features four-wheel power steering, which enables the driver to turn around and drive backwards for better visibility when extra large loads are handled.

Circle 28 on Service Card, Page 36

### Cellulose Felt Packing

Wood Conversion Co. has developed a cellulose fiber felt packaging material for shipping long or ir-

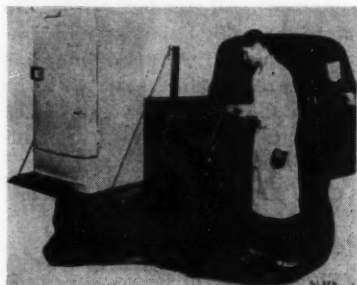
regular shaped articles. From canoes to generators and stoves to glassware, Tufflex Cargo-Pak provides the answer to pressure point, surface protection, thermal and flotation packaging problems. It can be fabricated to any size for a one-piece protective wrap.



Circle 29 on Service Card, Page 36

### Tailgate Loader

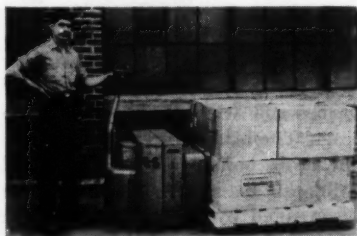
An improved Venco Tailgate Loader has been introduced by Ven Corp. A successor to Ven's original one-man loader for 1/2, 3/4 and 1-ton trucks, it has a completely automatic load brake.



Circle 30 on Service Card, Page 36

### Low-Lift Walkie

Lewis-Shepard announces a new Jacklift Electric low-lift walkie, 4000-6000-lb capacity fork truck with increased power and decreased overall length. The new unit features handle-head controls, vertical handle operation, electric deadman type brakes and timed acceleration.



Circle 31 on Service Card, Page 36

### Tune-In Wheel Balancer

Hunter Engineering Co. announces a new tune-in wheel balancer with heavy duty truck spinner. The balancer and portable spinner and truck wheel adaptors and accessories will balance 1/2 to 1 1/2-ton truck wheels with the same speed with which it balances passenger car wheels. The spinner has two 1 1/2 hp, 6000 rpm heavy duty motors connected by high speed coupler. Motors are operated by hand levers on both sides or by a rear foot pedal.



Circle 32 on Service Card, Page 36

### Industrial Loader

A new tractor-operated industrial loader, with a 1/2-ton lift capacity and 11-ft lift height, has been added to Dearborn Motors



equipment line. Designed for operation on a Ford tractor, two levers give finger-tip control. The hydraulic pump is mounted on the tractor rather than the loader, to give smoother, more positive drive.

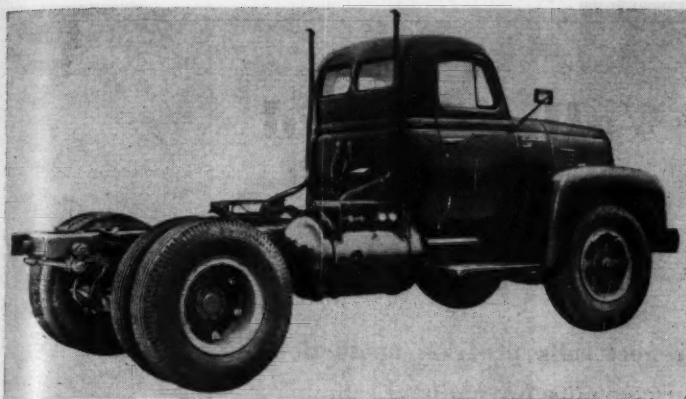
Circle 33 on Service Card, Page 36

### Special Crane Booms

Including the standard boom, which has a 9-ft, 8-in. overhang, seven sizes of Karry Krane booms are now available from Hyster Co.

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## First LP-Gas Truck

**Promises lower maintenance costs, longer oil use; large tanks permit 400 miles between refuelings**

**T**HE MOTOR truck division of International Harvester Co. has introduced factory-built liquefied-petroleum-gas-powered engines as Underwriters Laboratories equipment on trucks.

W. K. Perkins, manager of the company's motor truck sales, announced that the innovation is new to the motor truck industry.

The LP-gas (propane-butane) engines are optional on all International trucks equipped with the super Red Diamond engines. Perkins claims several benefits for truck owners in operating efficiency and costs with the high-octane fuel.

The potential production of LP-gas is large, Perkins announced, with costs in most states running several cents per gal under that of ordinary gasoline. The newer fuel is available at about 4,000 bulk distributing plants in the United States.

### Expect Lower Costs

Large fuel tanks permit trucks to run as far as 400 miles between refuelings. Fleet operators are promised lower maintenance costs and longer use of motor oils.

IH has worked closely with the Underwriters Laboratories to provide maximum protection and

safety and secure approval of the installation of the new equipment. The high-octane qualities of LP-gas make use of higher compression ratios possible.

The company incorporated especially engineered LG-gas carburetion, cold manifolding and other refinements in its production designs to take advantage of the combustion qualities of the gas which does not form carbon sludge or gummy deposits.

### West Coast

IH has offered optional LP-gas fueled engines in their west coast-built models for several years. The manifolding arrangement of the new model is different because successful engine operation in this system depends upon a cold induction system free from the hot spots necessary for gasoline engines. This was done by completely divorcing the intake and exhaust manifolds, eliminating the connection between the manifolds as it exists in the standard engine.

The 62-gal liquid measure tanks, also Underwriters listed, can be refilled at service stations by pumping the fuel in liquid form through a hose fitting which is attached to the fill valve on the pressure tank.

## Free Literature

(Continued from Page 36)

### Paper Work Storage

Equipto, division of Aurora Equipment Co., announces new, highly accessible, space saving steel storage files for old records. The units are extremely compact, and permit use of sky room area.

Circle 70 on Service Card, Page 36

### Two-Headed Pedestal

Richardson Scale Co. offers a new data sheet on its Two-Headed Sewing Pedestal for closing paper, cloth, or burlap bags after they have been filled.

Circle 71 on Service Card, Page 36

### Salute to the Champ

Winners of the American Trucking Associations' Rodeo Championships are saluted in a special booklet, "Biographies of the Best," prepared by Fruehauf Trailer Co.

Circle 72 on Service Card, Page 36

### Tramrail Data

Cleveland Tramrail Division of the Cleveland Crane & Engineering Co. has revised its Booklet 2008-H, "Cleveland Tramrail Engineering and Application Data." The booklet is designed to outline overhead materials handling equipment and how it can be applied.

Circle 73 on Service Card, Page 36

### Tin Saving Tips

An article from the Journal of the American Society of Naval Engineers, "Methods of Saving Tin," has been reprinted and is available for free distribution through the Bureau of Ships, Office of Information. It offers all the known methods of saving tin in one handy format.

Circle 74 on Service Card, Page 36

### Metal Processing

American Cyanamid Co. has announced publication of a technical data sheet describing Aeroheat 1200-R, a metal processing chemical. Aeroheat is a highly concentrated rectifier for use with neutral type salt baths under extreme operating conditions.

Circle 75 on Service Card, Page 36

### Instant Dry Paint

A color brochure showing the 24 colors of Wilbur & Williams Co.'s new Totrust Enamel Instant Dry is available. Developed for exterior equipment, road equipment and industrial machinery, the new paint produces a high, tough gloss, resistant to chemical fumes, and dries in a matter of minutes.

Circle 76 on Service Card, Page 36

# Ohio Valley Board Cites Clean Car Needs

Committee report calls program apathetic—  
suggests improvements for national campaign

## The Committee

**A. M. Harris**  
*Chairman, Railroad Contact*

**James P. Haynes**  
*General Chairman, OVTAB*

**R. J. Joyce**  
*Chairman, Executive Committee*

**A. C. Coyle**  
*Chairman, Legislative Committee*

**G**ENERAL ineffectiveness of the national Clean Car Campaign and suggestions to remedy the situation were included in a report submitted at the last meeting of the Ohio Valley Transportation Advisory Board by the Clean Car Committee.

Pointing out the \$100 million car cleaning bill railroads pay each year, the report urges that railroads attempt to educate shippers to their moral and financial responsibility in following objectives of the Clean Car Campaign.

### Passive Policy

Claiming that many railroads maintain a passive policy for competitive reasons, the Ohio Valley group suggests that the entire program should be policed by an agency independent of railroad solicitation.

A third committee suggestion involves formation by the American Association of Railroads of a Clean Car Program paralleling the highly successful AAR Claim Pre-

ventions Program. Clean car expenses, according to the OVTAB, are at least as high as claim losses.

In keeping with its desire for immediate and universal action on the subject, the Ohio Valley unit last month carried the problem to the National Association of Shippers Advisory Boards at a meeting in St. Louis, Mo. (see Chuting the News, Page 11).

### Complete Report

For those interested in the clean car problem, DISTRIBUTION AGE herewith presents the original committee report:

For several years shippers of the OVTAB have been discussing the need for clean cars. The late Carl Gray, president, Union Pacific System, Omaha, Neb., told the story of the hired man on the farm who fed hay to ducks. The farm manager inquired of him if the ducks ate it.

The hired man answered by saying, "No, but they're still talking about it." This story illustrates in a fair way the progress in the campaign for keeping cars clean and in service.

Unfortunately, many shippers at times encourage placing of empty

cars, regardless of their condition, on the plea they will perform all cleaning and conditioning at their own expense, since they need the equipment. As long as this theory prevails we will never improve the clean car program.

### Do The Whole Job

There is no excuse for any shipper not completely unloading each car and less excuse when he cleans his platforms and docks by sweeping all refuse, including empty cartons, crating material, waste paper and garbage before the empty is removed from his side track.

Each and every railroad should see to it that such shippers are properly informed of the neglect and moral responsibility they owe themselves if they expect good transportation.

### Competitive Hitch

It has been brought out at various meetings that some railroads do not wish to insist on cars being cleaned by shippers for competitive reasons; other railroads needing such cars for shippers condition the cars themselves.

(Please Turn to Page 49)

Editor's Note—For additional information on the Clean Car Campaign see "Clean Cars Can Cut Costs" on Page 30 in the August, 1952, DISTRIBUTION AGE.



This plant has solved traffic problem of moving parts between departments. Remote control button is on truck seat



The industrial door operator proved valuable in this cold storage warehouse; less door-opening stabilized temperatures

## Electronic Device Operates Plant Doors by Remote Control

Automatic unit provides dual savings in providing faster handling of goods and cutting labor time

A CHICAGO manufacturer has announced the production of a new industrial electronic door operator that opens and closes plant doors by remote control.

Designed by the H. W. Crane Co., the unit is particularly adapted for fork trucks, delivery trucks, fleet cars and other vehicles that must pass through the same plant door many times. The plant doors are raised or lowered by pushing a button, located on the dash boards of trucks or commercial vehicles or on the side of the seat where it is within convenient reach of the drivers of fork trucks or other vehicles without dash boards.

The unit has already demonstrated its man-hour and dollar value in decreasing fork lift operating time, speeding movement of goods and helping to maintain controlled temperatures.

The manufacturer's new remote control industrial door operator combines the features of the older wall push-button industrial unit with the remote control equipment used previously on residential models. The residential models have met with success as judged by consumer reaction. The principal modification in the industrial type is the use of heavy-duty electric switches to take care of heavier traffic.

Crane company officials report that the unit's cost is low and that most manufacturers, with heavy in and out traffic, realize considerable savings in man-hours ordinarily required to open and close doors.

One small midwestern manufacturer estimates that from two to three man-hours daily are saved in the operation of two fork trucks

through the same door. He adds that the unit paid for itself in two months in terms of man-hour savings and increased efficiency.

Another early installation of the remote control unit was in a large cold storage warehouse where fork trucks handled the storage of frozen foods.

The installation enabled the plant to maintain a more satisfactory and economical temperature level because of the brief time that the storage room doors were opened. The unit also reduced the amount of time spent by drivers in leaving their fork trucks to open and close doors. Finally, the drivers reported less fatigue due to the less demanding operations.

The manufacturer reports that the unit, including a radio unit in the vehicle, can be installed by the new owner's maintenance department without help from the manufacturer or trained personnel. •

Circle 35 on Service Card, Page 36



**National operates industrial information bureau for firms planning relocation along its network of southern cities**

**By Walter Sternberg, Jr.**  
*Vice President—Sales  
 National Air Lines*

**S**OME time ago, we of National Air Lines set up an Industrial Information Bureau at our Miami, Fla., headquarters. The IIB was formed to assist businessmen and manufacturers who have expressed interest in moving to the South.

National made available its entire staff of sales representatives, station agents and managers in 33 cities for personal contact with interested businesses. We also arranged interviews between northern industrialists and Southern chamber of commerce heads, bankers, realtors and business leaders.

We believe ours was the first effort on the part of an airline serving more than one confined area—in our case the entire Eastern Seaboard and Gulf region—to devote time, staff and money to promoting its area commercially. Since inaugurating the system we have received scores of laudatory letters from city and county officials, civic leaders and business people.

#### **Possible Returns**

We feel that friends we make through this service will think of National first when planning plane travel north or to Cuba. It also seems logical that businessmen we help relocate will consider National when planning air transportation for business, pleasure or cargo reasons.

One important selling point lies in the fact that Southern locations



Over and above its normal services, this airline operates a good will gimmick which promises high returns

## **An Air Line Helps Industry Move**

are only a few air hours from the rich market that extends from Maine to Chicago and south. This is a tremendous advantage to manufacturers of light goods such as wearing apparel, surgical instruments, optical goods, machine tools and drugs and chemicals.

Numerous factors must be considered by a businessman before he can make a major relocation step. National has gathered, and furnishes to prospects, a considerable amount of basic information on all cities along our routes. We also assist in obtaining more specific information on request, or offer advice as to where such information can be found.

#### **Basic Requirements**

The type of information required usually falls into three basic categories: natural resources, general economy, and government and community facilities.

Geography, climate and raw materials are considered under the natural resources classification. Geography questions primarily involve availability to state and national markets. Raw materials inquiries concern local resources as well as those of surrounding states. The climate factor is important to those who have suffered an overdose of absenteeism because of unfavorable weather conditions in the North.

Economic questions center around population of the community and trading area, labor potential, union conditions, a retail market for the company's product, and information on neighboring industry, particularly competitive industries.

Most businessmen also want information on local and county government structure, the tax situation, possible political corruption, police protection and the local crime rate.

Community facilities cover a wide range of interests, social and economic, with many business leaders considering the former as pertinent as the latter. Questions are aimed at the condition of local churches and schools, streets, civic organizations, hospital and medical service, hotels and restaurants, housing conditions, recreational facilities, retail outlets and transportation.

#### Economic Inquiries

Economic factors surveyed include banking, construction and service facilities, communications, fire protection, fuel and power rates, retail establishments, waste and sewage disposal, warehousing, wholesale facilities, etc.

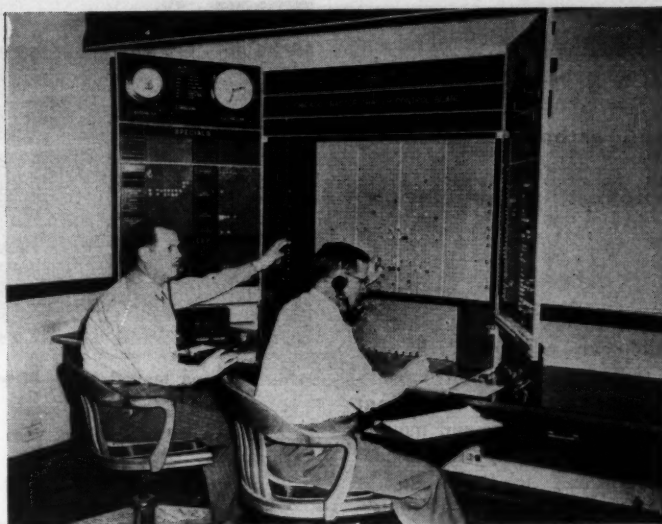
The nature of inquiries, over and above basic questions, varies in accordance with the type of industry involved. A plant employing 1500 persons, for example, could hardly expect to move into any small town without making arrangements for construction of additional living quarters. In some instances, however, it is possible for manufacturers to move key personnel only, relying on the local labor market to fill the ranks.

#### Fields of Interest

Inquiries come from three basic sources — agriculture, small business and the larger manufacturing industries. Because of the return potential, we naturally concentrate on the larger companies. We do, however, offer the service for small businesses which employ 20 or more persons. It has been our experience that a number of small businesses have more than doubled their size within a few years after relocating.

If we are instrumental in helping only one or two large industries relocate in one of our route cities each year we will consider time and expense of the IIB more than justified.

We expect to do better, however, particularly among the smaller companies, where the field is most fertile. Success of the program depends on personal sales contact rather than direct mail or other passive action. National has planned the program accordingly. •



The dispatch board is designed to reduce strain and fatigue, being especially surfaced with formica in four modern easy-on-the-eye colors.

## New Fleet Dispatching Board Hikes Efficiency One-Third

**REA Chicago installation gives closer control over  
649 tractors and trailers, speeds pickup and delivery**

**A** NEW \$5,000 fleet dispatching board is giving Railway Express Agency closer control of its 504 trailers and 145 tractors operated in the Chicago area, and giving REA customers improved pickup and delivery service.

The new tractor-trailer control board not only gives location of trailers, tells whether they are empty or not, shows the number of tractors available, but also warns operators when to equip vehicles with chains because of a sudden snowstorm. It tells outside temperature and has double insurance against time failure with a dual motored electric clock.

Inventor C. H. Ryan was asked to design the board with a maximum flexibility to accurately control 250 tractors and 1,000 trailers. It is 5 ft high and 9 ft wide, and has three panels — the left and right of which are hinged and therefore

moveable toward the operator. The right hand panel is marked "Pickup," while the left panel is for "Specials" and "Deliveries."

The center or main board is divided into two sections. The lower section lists all terminals and offices of REA in the area, and by means of colored buttons, indicates placement of empty trailers and follows through to the loaded stages.

When the trailer is loaded and hooked to a tractor, it's corresponding button — identified by a number — is moved to the upper portion of the board under "time control" enroute to destination. This arrangement gives the dispatcher an accurate picture of the situation and permits him to plan ahead and make more efficient use of both tractors and trailers. It is estimated that efficiency has been increased 33 per cent since installation of the new board. •

**Road wheel-rail tug permits continuous box car handling at Midwest grain elevator**

**A** VERSATILE car shifter, quickly adaptable for road wheel or rail operation, has been responsible for important economies in spotting and moving grain cars for loading and unloading operations at the plant of Anderson Elevator Co., Maumee, Ohio.

Anderson maintains a truck elevator at Maumee, where grain is loaded into empty cars, and a marine terminal at Toledo, where specially covered hopper cars are unloaded for conveyor handling to ships' holds.

#### Continuous Handling

The convertible shifter has helped promote virtually continuous car handling, which the experts claim is absolutely essential if full efficiency is to be realized. The truck elevator situation at



After spotting loaded cars, shifter returns to crossing via road wheel operation

## Convertible Shifter Pays Off In Man Hours

Maumee makes continuous handling doubly difficult since only a single track serves the two elevators, with a scant one-foot clearance on either side of the track.

The handling job involves the loading and unloading of some five million bushels of grain a year. The same car shifter serves at both Maumee and the marine terminal at Toledo, eight miles distant.

Grain shipped out of the truck elevator goes directly by rail or is trans-shipped via the Wabash Railroad in covered hopper cars to the marine terminal for lake transport.

#### 12 Minutes Per Car

At the Maumee truck elevator, use of the Whiting manufactured Trackmobile permits loading at a rate of 10,000 bushels per hour, or one car every 12 minutes.

Former methods involved the use of a tractor and mechanical car puller. Difficulty was frequently experienced in maintaining the 10,000 bushel per hour rate, especially during slippery weather. The mechanical car puller has been retained, but it is used in only one phase of the operation.

With the new shifter operating  
(Please Turn to Page 50)

Single track between elevators and extremely tight clearance complicate situation





## ... Clean Cars

(Continued from Page 44)

This form of apathy tends to continue the delinquency of the problem without corrective effort. The question needs policing by an agency independent of the solicitation of the railroads. As we see the picture on an over-all basis, unless such independent policing is provided on a permanent and continuous basis, little improvement will be made.

### \$100 Million Cleaning Bill

It has been stated many times that it costs the railroads upwards of \$100 million annually to clean cars. This is over and above the car days lost while switching to and from cleaning tracks, loss of per diem, and the loss on investment while equipment is out of service. This economic loss is equal to, if not greater than, the annual loss and damage claim account, which has been near \$100 million for some time.

### AAR Program

The Association of American Railroads has been doing a good job with the railroads in reducing claim losses. Why can't as much collective and individual thought be given to reducing cost of cleaning of dirty cars. Several advisory boards have been considering this subject for several years.

### National Solution

In our opinion, if the clean car campaign is to amount to anything worthwhile, it must be dealt with on a national basis. In the end the shipping public pays freight rates for the \$100 million loss and damage claim account as well as the \$100 million expense for cleaning cars. If this \$200 million loss can be materially reduced, it is time we started in earnest and stopped imitating the talking ducks. •

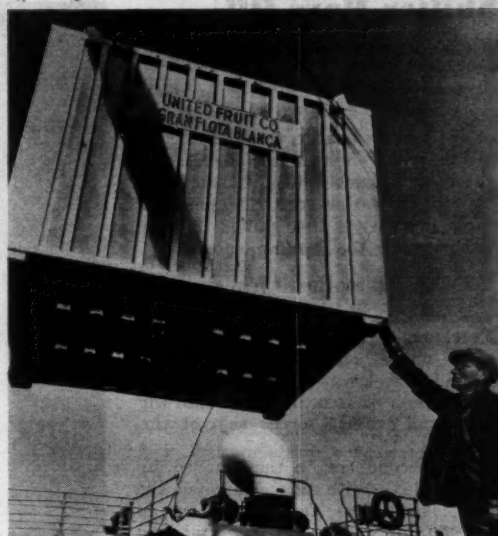
(Resume Reading on Page 45)

—DA—



"Sure, he's a strapping fellow; runs a steel strapping machine."

To protect valuable cargo from pilferage and damage, United Fruit Co. uses 94 of these welded steel, 275-ft capacity Transportainers. Various sizes of individual crates, packages and boxes are stowed and locked in the containers, which are handled on piers and aboard ships as single units. Although as a rule the containers are packed at United's pier in New York, some companies are exploring the possibilities of loading them fully at their own warehouses.



## Pilferage Puzzle Solved By Steel Containers

United Fruit Co. utilizes Transportainers in move to cut loss by theft, reduce damage and speed handling

SEVERAL years ago United Fruit Co. undertook experiments with welded steel shipping containers for the protection of commercial cargo consigned to or from Central American ports. Today United has 97 of the Dravo Transportainers in use.

As a general rule, containers are packed with cargo at United's New York pier. Then they are locked and sealed. Highly pilferable goods like jewelry, watches, shoes, X-ray equipment and small packages are stowed in the containers. In some instances such cargo as refrigerators, stoves and other merchandise also is stowed in the weathertight containers for protection from damage.

Once stowed, cargo is not touched again until the boxes are opened at a customs house or some other delivery location where consignees obtain their shipments. This eliminates considerable paper work and cargo sorting and handling. It also

decreases the length of time merchandise is exposed to pilferage.

Use of the containers has substantially speeded deliveries. At Puerto Limon, Costa Rica, cargo generally is moved from shipside to the customs house by rail on a long pier. Due to pier congestion, common in most ports, it often takes as long as two weeks to get cargo into the customs house. During the interim, there is risk of pilferage and weather damage. Cargo now is moved immediately to customs. The steel boxes are unloaded from ships and placed on flatcars which take them directly to the door where they are unlocked and unloaded.

The type of container used by United has short legs which permit forks of a lift truck to slip under the base of the box on pier. Lifting lugs are welded to each top corner of the container so they can be handled by ships' cranes. •

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## Shifter Pays Off

(Continued from Page 48)

at the truck elevator, empty box cars are moved from the yard to the elevator on a track which runs directly between two elevators. The first of these two cars is then pulled into position under the loading spout.

### Shift to Road Wheel

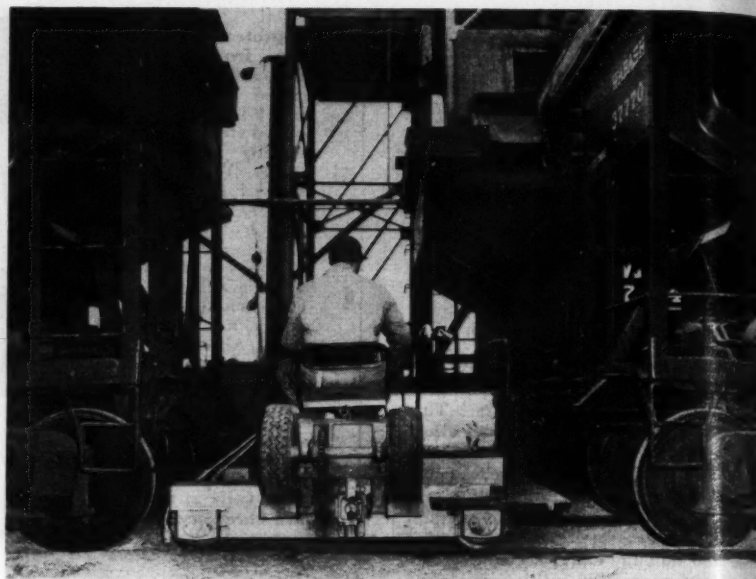
While the first car is loading the Trackmobile is uncoupled, shifted to road wheel operation and driven around the elevator to the other end of the cars. It is next moved onto the track and coupled to the rear of the cars.

The second car is then moved up and loaded. With this completed the two loaded cars are pushed out to the spur by the car shifter, total load being 160 tons. After spotting the loaded cars, the shifter is uncoupled and returned on track wheels to a crossing. Two other empty cars, in the meanwhile, have been spotted under the spout by a mechanical puller.

### Marine Terminal Job

At the Toledo marine terminal, where the shifter is said to operate with even greater efficiency, the operation involves moving, spotting and pushing the covered hopper cars over the pit into which the grain is dumped for conveyor transfer to the ship's hold.

Grain is hustled into the hold at the rate of 15,000 bushels per hour. The versatility and speed of the car shifter has enabled Anderson people to make use of two tracks instead of one as formerly used. It also permits accomplishment of the job with one less man.



Loaded car is hauled to pit for conveyor dumping at Toledo marine terminal

### Hydraulic Jacking

Flexibility of the shifter comes from its rather unique application of hydraulic jacking power. When on track wheels, it couples to any standard railway car. Then, the mated couplers are hydraulically raised, transferring part of the car weight to the shifter, thus enabling it to develop a maximum drawbar pull of 7350 lb.

Hydraulic jacking is also employed to raise and lower the rubber-tired road wheels for shifting to road operation. All controls are handled by the operator from the driver's seat. Changeover from road to track oper-

ation is accomplished in just 30 seconds.

### Wide Application

Time and manpower being premium factors at the Anderson site, plant officials have cited the car shifter system because it effected substantial savings on both counts. In addition, they claim, it has considerably simplified the entire operation.

While the car handling problems of a grain elevator are generally considered to be specialized, engineers say the basic scheme is similar to that found in many other industrial plants, giving the car shifter a wide range of application. •

As tug spots loaded car it also pushes empty away using a special bumper rig



# Preventive Maintenance

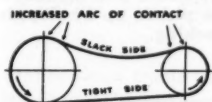
(Continued from Page 32)

**Too Much Sag.** To maintain tension required originally, it often becomes necessary to take up slack after a new belt has been operated for a short time. This can be done by increasing the distance between the shafts about  $\frac{1}{2}$  per cent of the total length of the belt. Correction of slack is especially necessary in multiple drive belts.

## FLAT BELT DRIVE

**Pulling the Wrong Way.** Whenever practicable, belts should be so installed that the slack side is on top of the pulleys and the pulling side of the belt on the bottom. This will give the maximum arc of contact between belt and pulley.

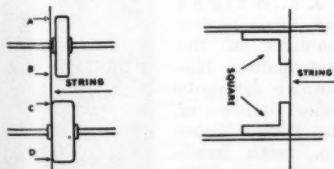
**Slipping Belts.** To obtain the best live gripping effect from belt drives, run the belts with the least tension required to transmit the maximum load without slipping. This will aid in increasing the arc of contact and re-



ducing slippage. However, slippage caused by running belts too loosely should be avoided. A belt that is too loose will not only slip, but will glaze, crack, burn and peel.

**Glazed Belts.** Belts will become glazed or have dry surfaces if they are operated over crowns which are too high. In some cases it is best to reduce the crown taper.

**Pulley Misalignment.** Correct alignment is essential for good service. Check with a string on both edges of the pulleys and recheck after giving



the pulley a half turn. In vertical position, the pulley may be checked with a plumb bob. Place pulleys as close to the hangars as possible to prevent sprung shafting.

**Dirty Belts.** Avoid use of wire brushes when cleaning dirty belts. A fibre brush or a soft rubber strip will remove dirt without injury to the belt surface. Keep belts clean with one of many excellent dressings available.

**Tendency to Lap Open.** To check this tendency, face the outside feather edge of a cemented lap in the direction opposite to belt run. This will keep the edge of the joint from being lifted by air current.

**Crooked Belts.** Belts will run crooked if stretched on one side or if the ends are not joined squarely. Also, if the pulleys are misaligned, the belts will try to run up the flanges or

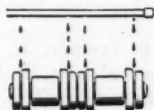


the steps on cone pulleys. A belt will also run steadily to one side of the driven pulley if it is too slack, the load too great, or the shafts misaligned.

**Undue Wear on Belt Edges.** This can be prevented by a periodic check of belt guards, guides, shifters and pulley flanges, which, if they are misaligned, will result in distorted, damaged belting. When belts run in quarter turn drives, it is best to give them a half turn before splicing as this will distribute wear more evenly and prevent distortion.

## CHAIN DRIVE

**Lubrication.** Chain drives operate at greater efficiency and maintenance costs are held at a minimum if the chains are properly lubricated with a



good grade lubricant selected to meet drive requirements. Slow speed chains may be brush oiled; normal speed, by drip feed, and high speed, by a forced-feed pump arrangement.

**Keys and Bearings.** If new keys must be used, be sure they fit well and that all burrs on shaft and sprocket are removed. Worn bearings will throw the drive out of alignment and should be repaired or replaced immediately. Periodic bearing inspections are a must.

**Additional Installations.** If an additional chain drive installation is required on an older machine, make sure that the center distance is great enough to allow for sprocket clear-

ance. To maintain correct tension, make sure the shafts are level and parallel. Do not depend entirely on bolt tightness, but supply additional rigid foundation that will keep the equipment in proper position.

**Alignment.** Sprockets must be examined periodically since misalignment is one of the most important



factors in shortened chain life. Sprocket side faces should be checked with a straightedge.

**Sprockets.** If teeth are worn, the sprocket should not be used with a new chain. If worn sprockets must be used, reverse their position on the shaft. Hook shaped teeth will ruin any



chain. It is best to use new sprockets that fit the chain, and check alignment. An excessive amount of slack in the chain will cause it to jump the sprocket, possibly damaging the teeth, the shaft or the machine.

**Dirt.** If the chain is exposed to dust or grit it should be thoroughly cleaned occasionally by washing it in gasoline,



kerosene or hot soda water. After washing the chain should be bathed in neutral mineral oil or melted graphite grease. Remount the chain to run in the same direction with the same side up.\*

(Resume Reading on Page 34)

—DA—

DISTRIBUTION AGE wishes to thank the following firms and groups for assistance in preparation of this article: American Leather Belting Assoc., J. E. Rhoads & Sons, Alexander Brothers Belting Co., Chain Belt Co., Fort Worth Steel & Machinery Co., Worthington Pump and Machinery Corp., Whitney Chain Co., Morse Chain Co., Graton & Knight Co., Baldwin Belting, Inc., Link Belt Co., Reeves Variable Speed Transmissions.



# Men in the News

(Continued from Page 13)

**C. How** as assistant to the manager of industrial relations in the New York office.

**J. A. White**—new sales representative, Chase Bag Co., Virginia-Carolina area.

## Traffic

**Greg B. Perry**—new traffic manager of the Houston Port and Traffic Bureau.



**Arnold J. Larson** has been named general traffic manager by Masonite Corp., Chicago, Ill. He succeeds **H. R. Paul**.

**Jack E. Henderson**—appointed traffic manager, Pittsburgh Consolidated Coal Co., Pittsburgh, Pa., succeeding **Frederick E. Siepert**, retired.

**O. L. Culbreth** is general traffic manager in charge of the enlarged traffic department of Commercial Solvents Corp., New York, N. Y.



**Andrew F. Lane**—named assistant to the vice president in charge of traffic, Boston and Maine Railroad, and traffic manager of the Mystic Terminal Co., Boston, Mass.



**James J. Walsh** is the new director of traffic of the Mennen Co., New York, N. Y. He comes from Standard Brands, Inc.

**S. P. Nunley** — appointed general traffic manager, Phillips Petroleum Co., Bartlesville, Okla.

**Clarence Roxby**—new general traffic manager, Nestle Co., White Plains, N. Y. Nestle also named **Raymond Ennis** and **Frank Korinek** as traffic managers.

**D. W. Young**—appointed manager of the Kansas City District by Wood Conversion Co., St. Paul, Minn.



An inversion of the overhead, trolley-type conveyor is shown in operation at the Crowell-Collier Publishing Co., Springfield, O., where trimmer lifts of magazines are wormed around building obstructions and carried to the packing and shipping departments. Packing and shipping operations are speeded and manual handling is minimized as trimmer lifts arrive at shipping, are picked up by shipping room workers and are reverse stacked on conveyor for packing.

**Dr. Fred Olsen**, vice president of research and development of Olin Industries, Inc., East Alton, Ill.—elected president of Industrial Research Institute, Inc.

United States Plywood Corp. has announced the appointment of three new sales heads: **Jerry Kayne**, at the Brooklyn-Queens plant; **I. E. Jatlow**, at New Hyde Park, L. I., and **Herbert Tepe**, Newark, N. J.

**Jack L. Ware**—named sales manager by the American Excelsior Corp.

**William P. Pfeiffer, Jr.**—now vice president, central sales, Hinde & Dauch Paper Co., Sandusky, Ohio.

## Transportation—Air

**Paul W. Shoemaker** — new sales manager in the Lansing, Mich., area for Capital Airlines.

## —Highway

**John Davies** — promoted to assistant chief engineer, Eaton Manufacturing Co. Axle Division, Cleveland, Ohio. Eaton also named **Chester D. Christie** staff engineer.

**George C. Cassell**—appointed Western Division manager by Interstate Motor Freight System, with offices in Chicago, Ill. Interstate also named **Ed Oberfeld** assistant to the vice president in charge of traffic.



**Edward L. O'Neill** has been named manager of the newly established export department of Trailmobile, Inc., Cincinnati, Ohio.

**W. F. Martin**—new comptroller of Cleveland Cartage Co., Cleveland, Ohio.

**J. C. Wright** has been named manager of the Metropolitan National Accounts Sales Division of the White Motor Co., with headquarters in New York, N. Y.



**H. R. Stickel**—named assistant to the president, White Motor Co., Cleveland, Ohio.

**Thomas C. Ballou**—now district sales manager American Car and Foundry Co., New York district.

(Please Turn to Page 55)

## Men in the News

(Continued from Page 52)

### —Rail

**Edgar D. Ziegler**—appointed foreign freight traffic manager by the Pennsylvania Railroad, with offices in Philadelphia, Pa.

**Stephen T. Keiley**—named general manager of New York Central's Boston & Albany Railroad, Boston, Mass.

**David Smucker**—named director of the Railroad Transport Division of DTA.

**Lynne L. White**—president of the NYC & St L RR, elected to the Board of Directors of the Association of American Railroads. AAR also appointed **Gerald D. Finney** and **Harry J. Breithaupt, Jr.**, assistant general solicitors.

### —Water

**Frederick J. Orner**—named acting director of DTA's Port Utilization Division.

**Milton Hallen**—new traffic manager, Port of San Diego, Cal.

### Warehousing

**O. Rhodius Elofson**—new advertising manager of the 1953 Directory of Public Refrigerated Warehouses, National Association of Refrigerated Warehouses.

**J. L. Keeshin**—assumed active management as president of Truck-Rail Terminals, Inc., Chicago, Ill.

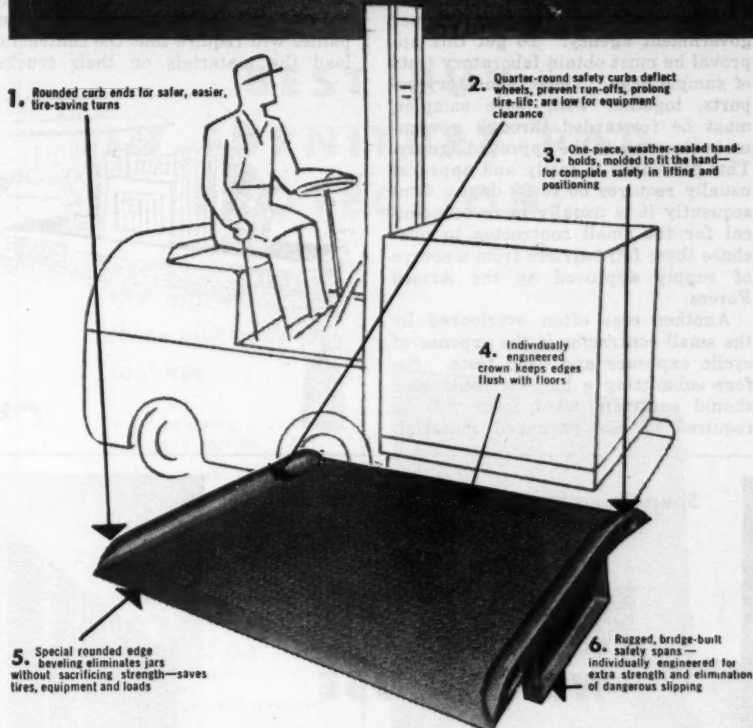
**Walter A. Naylor**—recipient of the Canadian Warehousemen's Association's first Award of Merit.

(Resume Reading on Page 15)

—DA—



"... Forerunner of the original conveyor."



### Light-weight HEAVY-DUTY Magnesium Construction

( $\frac{1}{4}$  the weight of steel) with resulting increases in efficiency and safety... individually engineered for your requirements... long life that you can take for granted: these are the other money-saver features that make Magcoa Dockboards a good investment right from the start and your best investment in the long run.

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## Bidding Tips . . .

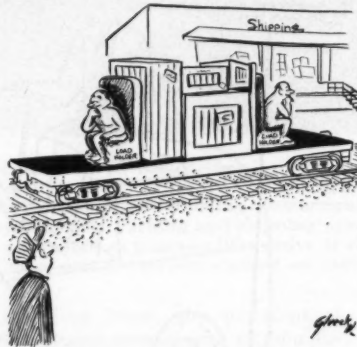
(Continued from Page 24)

tractor must not miscalculate the cost of interior packaging from the standpoint of either labor or materials. He should first check thoroughly on the cost of set-up boxes and cartons, especially if his contract requires that he procure them in small quantities.

Foil barriers for interior packing are another pitfall for the small contractor. He may find too late that he cannot fabricate his barrier material into moisture-proof bags in his own plant without approval by the proper government agency. To get this approval he must obtain laboratory tests of sample bags. These laboratory reports, together with more samples, must be forwarded through government channels to the approved agency. This procedure is costly and approval usually requires 60 to 90 days. Consequently it is usually more economical for the small contractor to purchase these foil barriers from a source of supply approved by the Armed Forces.

Another cost often overlooked by the small contractor is the expense of cyclic exposure and drop tests. Before submitting a bid, the contractor should ascertain what tests will be required of his packaged material.

One of the most frequent miscalculations of the bidder is his failure to include in his estimate the shipping or carloading costs. Too often after he receives his contract, the contractor gets instructions to ship a carload of material. He finds he must haul the material to a spur or team track and stand the labor, material, and equipment cost necessary to load and properly shore the material in or on a rail car. Further, if there is no loading dock at the plant, most trucking companies will require that the contractor load the materials on their trucks.



All experienced contractors know that nothing is ever shipped on government contracts until the weight of the paperwork involved equals the weight of the article to be shipped. Therefore, the contractor should remember when estimating his bid that he will have paperwork to handle. One of these pieces of paper is a Certificate of Conformancy. The manufacturer must request these certificates on all materials delivered to him. These certificates must be retained in his files for inspection purposes.

The standard clause in supply contracts gives the government the right to inspect the material involved during and at completion of manufacture, and to reject or require correction of defective articles, material, or workmanship of manufacturing or packaging. Failure to comply with these requirements can cause the contractor added cost and time and any attempt made to cut corners on packaging can only result in expensive failure and loss of prestige with the procurement agency should the bidder desire future contracts.

The bidder should always remember that the pitfalls that occur from bidding on government contracts can become quicksand if he is the successful bidder who has underestimated the true costs of the contract. •

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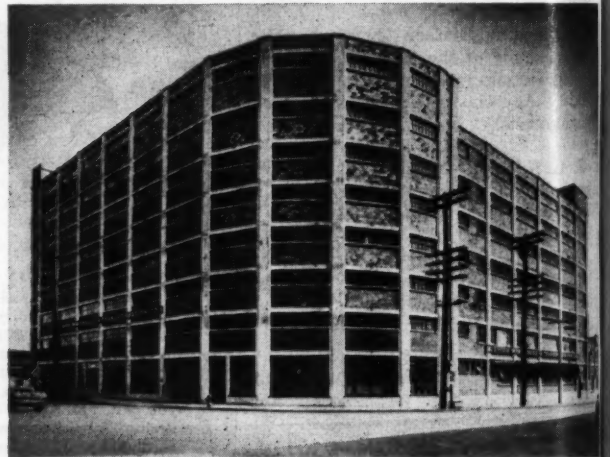
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One of five Lehigh warehouses serving metropolitan New York/New Jersey



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## Packaging Tips . . .

(Continued from Page 25)

(2) the nature of the product, and  
(3) the degree of resistance (preservation) that has been provided. The resistance may be enhanced or developed by different methods or prescriptions.

### Preservation Theory

In effect then, the theory of preservation is to equalize all material and finish—to cause time to stand still—in other words, to stop Mother Nature's clock. Thus, whether its material and finish be leather, plastic, rubber, or painted or bare metals, the product must be ready for use after subjection to the most severe conditions.

These comments seem to explain the "why" of preservation, but they were primarily intended to focus your attention to the need for the manufacturer to understand that "what is good for the goose might not be good for the gander." The manufacturer who habitually exceeds the requirements by preserving hardware as he would bearings, for example, will afford the product adequate protection. He will, however, dig deep into his pockets to pay the tariff—and is likely to find himself on the outside looking in when the military awards the next contract to a manufacturer with lower packaging costs.

Conversely, the manufacturer who preserves bearings as he would hardware finds either that he has encouraged difficulty with the local Military Quality Control Representative or that unsatisfactory reports are received from the field. Conceivably in either case he courts as much disaster as the manufacturer who overpacks.

### Contract Requirements

The method of preservation may be predetermined by the contract itself and the manufacturer may not be allowed to exercise discretion in selecting the method of preservation for his products. The contract may specifically spell out the cleaning process, the contract preservative compounds, the cushioning materials, the barrier, the unit pack quantity, and each packaging step through marking of the exterior container.

As an alternative the contract may require conformance to certain specifications listing only the unit quantities and referring to the specifications for the remaining details. The specifications with which a manufacturer might be involved are many and varied. However, the government publishes an index of specifications, and the Quality Control Section of the Western Air Procurement District will assist those who need the index or any certain specification.

(Please Turn Page)



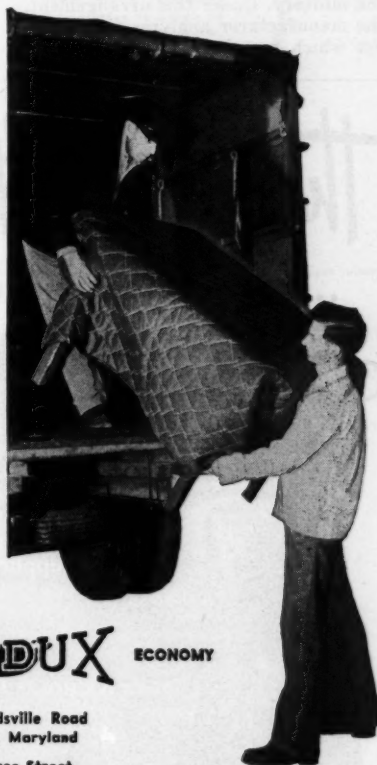
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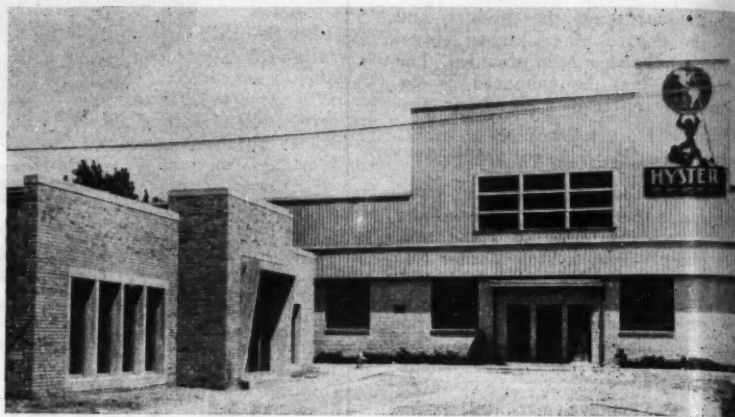
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Circle No. 114 on Card, Page 35, for more information

## Packaging Tips . . . (Continued from Preceding Page)

A second alternative gives the contractor some area in which to exercise his discretion. It is the establishment of the manufacturer as an approved packaging representative of the military. Under this arrangement, the contractor is granted authority to establish preservation and packaging requirements for his products. Such authority is granted to him only after the military are satisfied with his past performance and are reasonably confident that his future performance will meet the standards.

Each contractor so qualified is assigned a PTA (Packaging Team Approved) number which is called out in each contract issued to him. The contract simply states that the preservation and packaging shall be in accordance with PT number "X." This number not only represents the military approval of the contractor but, in addition, identifies the Air Force-Navy Aeronautical Standard Preservation and Packaging List which the contractor must prepare and which is subsequently approved by the military. Under this arrangement, the manufacturer analyzes each product which he will ship and prepares



Hyster Co. recently transferred the sales and service departments of its Eastern Division to Danville from Peoria, Ill. The new \$40,000 office is shown above.

a recommendation of the method of preservation which will be employed.

This recommendation is set forth in what is called a Packaging Information Form—a separate card is submitted for each and every part—and these cards form the Standard Preservation and Packaging List.

### Standardization

Despite the fact that conformance to the numerous specifications may not be expressly demanded in the contract, each of the specifications must be used as a guide. The intent, if not the letter of the law, must be implied and reflected in the make-

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up of the packaging information form. The greatest advantage in this arrangement is the standardization achieved and the elimination of research each time that a given part is processed.

Aside from the basic descriptive data that goes into the packaging information form, information pertaining to the cleaning, preserving, and packaging is developed by setting up a pilot pack of the pertinent part. These pilot packs may be subjected to the numerous tests prescribed in specification MIL-P-116A. These involve the rough handling test, the cyclic exposure test, quick leak test, and others.

#### Verification

Before the pilot pack stage, the manufacturer must be in a position to verify that his preservation and packaging material inventory conforms to the materials specifications. This he will do by maintaining on file copies of the certificates of conformance which he has required his suppliers to submit.

In addition, it is always a good practice for the manufacturer to periodically conduct in his own approved laboratory, or in a commercial laboratory that has been approved by the military, conformance tests on representative samples of his inventory. It probably need not be said that a rejected inventory may delay delivery schedules irreparably and certainly can affect costs adversely.

The manufacturer can best pack and preserve for the military if he uses the following guide: He should know exactly what his obligations under the contract will be. He should make provisions—space, equipment, manpower, and materials—to discharge these obligations. He should, if he desires to be successful, assure himself as well as the military agencies that he is able to meet fully the standards which the contract requires.\*



"Notice how he's eliminated the congestion on the dock?"

## Special TYPES ARE STANDARD at Fairbanks

**HAND TRUCKS** of special design required for many industries are run-of-the-mill stock items in the Fairbanks catalog. There's a type for every need . . . of sturdy design, high grade materials . . . and built to last. Here are some typical examples. If you don't see what **YOU** need—ask for it.



**Fig. L 1191  
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Built to take the shock of heavy packing cases, boxes and machinery. Indestructible yet light in weight. One ton capacity.



**Fig. A-1448 All Steel  
UTILITY HANDTRUCK**

Ideal for bags, cartons, cases and small kegs. Solid nose plate, curved cross bars, welded center strap, fitted with step climbers. Load rating 400-500 pounds.



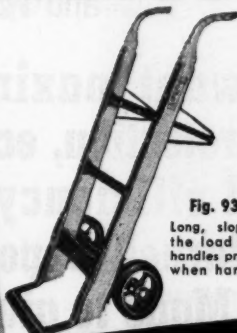
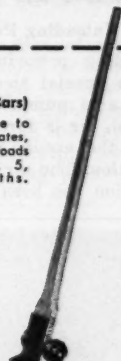
**Fig. CC-10 TIER TRUCK**

Beverages, cartons and crates can be handled more efficiently. High stacking cuts down storage space. Capacity 750 pounds.



**Lever Trucks (Pry-Bars)**

Tremendous leverage to handle heavy cases, crates, machines, etc. Raises loads 9" from the floor, 5, 6 and 7-foot lengths.



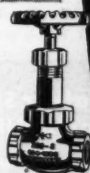
**Fig. 500 JACK and  
PLATFORM TRUCK**

Efficient, low cost lift jack and platform system increases production, cuts costs. Many standard platform sizes available; special sizes to order.



**Fig. 9304 HAND TRUCK**

Long, sloping lines "break" the load easily. Steam-bent handles prevent crushed fingers when handling large cases.



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# Water Shipments Save . . .

(Continued from Page 21)

iron content if there had been chemical reaction with ferrous metal.

Dow's small tug, Edco, tows the barges from Freeport to Galveston where a contract carrier picks them up for the trip through the Intracoastal coastal Waterway to the Mississippi River. There, another barge line takes them in tow for the remaining distance of 1350 miles to Cincinnati.

The barges, which are 195 ft long, 35 ft wide and 11 ft deep, are of welded steel construction throughout. Steel plates are installed on the sides to withstand rubbing against docks and lock walls.

At the Cincinnati terminal there is 4½-million-gallon storage capacity for the acid. The chemical is shipped from there in tank cars for distribution to customers in metal, glass, chemical, food and other industries.

## Unloading Procedure

Unloading procedure requires the use of a special shore-installed centrifugal acid pump. After the pump is started, air is forced into the tank through the excess pressure vent to help suction. The air is shut off when full suction has been obtained. There

is a sump in the bottom of each tank permitting the tank to be stripped of its acid cargo.

An average time of 60 days is required for the 3500-mile round trip, including delays for unloading the



Gen. Dwight D. Eisenhower, center right, marches past the reviewing stand with his Abilene, Kansas, delegation in a recent American Legion parade in New York City. A Yale & Towne fork-lift truck, equipped with a special platform, helped cameramen's coverage

barges, transferring them from one carrier to another and other necessary incidentals.

## Loading Economies

One barge can carry as much hydrochloric acid as 29 1/5 rail tank cars, each having a capacity of 8000 gal. An average of 45 minutes is required for loading one tank car, including shifting the cars. Therefore, it takes nearly 22 hours to load tank cars with the same quantity of acid that can be loaded into a barge in eight hours.

In loading tank cars with the acid, pipe connections have to be made for every 8000-gal car while only one connection is required to load 233,600 gal into one barge. This minimizes the number of chances for spilling and saves wear and tear on equipment.

Little maintenance has been required on the new barges. The four big, 12 ft diameter by 73 ft long, rubber-lined tanks in each vessel are securely strapped in steel saddles anchored to the barge structure and withstand the stresses and strains created by impact of the barge with docks, locks, and other barges.

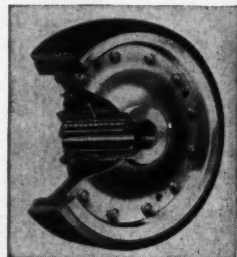
The barges were constructed at Dravo's Neville Island Shipyard in conference with the rules and regulations of the American Bureau of Shipping and the US Coast Guard. •

(Resume Reading on Page 22)

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Always **SWIVEL** and **ROLL**

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Circle No. 117 on Card, Page 35, for more information

## ... Blue Point Handling

(Continued from Page 23)

which the shellfish tumble to land on a rubber conveyor belt. The long narrow bars of the grizzly are there to screen sand from the load of dredged material. One man is stationed here with a mallet to dislodge oysters that catch between the parallel bars.

As the oysters travel along the belt, a second man supervises the filling of the bins. There are eight of these, each holding 1000 bushel. By placing a wooden snowplow against the further end of an 8-ft deep bin, oysters are forced off the belt into the bin. A rubber chute on either side of the conveyor belt slows the fall.

An animal cannot repair a broken shell once he is out of salt water. Oysters keep their shells tightly closed to prevent injury, but a sharp crack will damage the protective covering. Such stock cannot be shipped in the shell, so care is taken to keep them unharmed.

### Culling the Stock

The next morning cullers sort the stock in a room directly below the bins. Chutes funnel the stock onto sorting benches at which the cullers

stand. Stock is sold in three sizes, each size packed into a separate wire basket set on carts. When a wire basket is full, the cart is wheeled to the washer.

A four headed spray showers fresh water against the basket load of oysters at high pressure at four different points. The water turns off automatically, the cart remaining until the load is drained.

It is then wheeled into the packing room where the stock may be put into burlap bags for short hauls or into barrels for longer trips. If frequent handling may be done enroute, barrel-ling is customary.

### Floor Level Shaker

Wire baskets are emptied into a barrel and capped with a loaded basket turned upside down. Then the barrel is rolled into position on the shaker, which Hewitt-Robins manufactured for us. The shaker is set level with the floor so that no lifting need be done. Once the barrel is placed on the wooden planks covering the mechanism and the motor started, the barrel commences a cake walk down the length of the shaker.

As it is conveyed, the vibrating

joggles the oysters down in the wooden container so that when it is tipped later, not a sound will be heard. As the barrel reaches the concrete floor and stops automatically until men roll it off the shaker, the heaped basket has had its load drop down inside due to the settling of the stock. A second basket is added to heap the barrel again.

To hold the capping in place, a burlap square is placed over the top. A wooden hoop slips over this and is nailed tightly around the rim. The shaker does no harm to the oysters.

### Refrigeration

Packed barrels go out to the room adjoining the loading platform where they are held until trucks call for them. No icing is necessary for stock shipped in the shell, as a live oyster has its own refrigerating system because of the insulating quality of its thick shells. They stand extremes of heat or cold very well. However, recently refrigerated trucks have been found to deliver stock with less mortality loss.

We maintain a fleet of six boats and by effecting communications with the marine manager on the oyster grounds by means of a ship to shore telephone, orders can be expedited. By installing a vibrating conveyor system in the shipping plant's pack-

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Located at 184 Kent Avenue, Brooklyn, convenient to main arteries of Greater New York and all docks. Completely mechanized. Wet sprinklers. Auto, fire, burglary—ADT. Ceiling height: 10 ft. Floor loading 250 lbs. Specializing in food products. Contents insurance: \$0.054. Member: AWA, N. J. Motor Truck Assn., Warehouse Assn. N. Y. & N. J.

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One of five Lehigh warehouses serving metropolitan New York/New Jersey



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how  
to  
solve  
them!

If you're a shipper with a big family of distribution problems, turn to *Consolidated Freightways*—the West's pioneer motor freight firm.

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155 SIXTH AVENUE NEW YORK 13, N. Y.  
Central Stations in All Principal Cities

# ADT

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## ... Handling

(Continued from Page 61)

ing room, not only are man hours cut but a better packaging job is done.

On arrival at a wholesale house in Philadelphia, for example, a barrel has no empty layer at the top. When the rolling was done manually, it was impossible to ship without finding a loss of about six inches because of settling that had taken place on the trip.

We have been able to maintain our production rate in spite of a labor shortage and the difficulty of attracting men into work that is considered hard. •

(Resume Reading on Page 24)

—DA—

## OBITUARIES

Henry G. Sommer, chairman of the board of Keystone Steel & Wire Co., Peoria, Ill., died suddenly Aug. 30. He was 55. His regular employment in the Keystone laboratory began in 1917; however, as a son of Peter W. Sommer, one of the company founders, he had worked in the mill during school vacations as a youth. An officer of subsidiary companies, he also was a member of the American Iron & Steel Institute and Creve Coeur Club. He is survived by his wife, Dorothy Wilson Sommer, and a daughter.

Edward E. Ames, retired board chairman, director and vice president and director of sales of General Box Co., Des Plaines, Ill., died Sept. 28 at the age of 71. In the field since 1907, Mr. Ames was one of the country's best known figures in the wooden shipping container industry. He is survived by his wife, Mrs. Elsie Ames, a daughter and two sons.

D. F. Hahn, vice president and production manager and a director of General Box Co., died Sept. 23. He was 52. His entire career was given to the shipping container industry. He is survived by his wife, Meletta Hahn, and a daughter.

Duncan H. Sutherland, national accounts manager of the Blatz Brewing Co., died Sept. 26 at the age of 50. He had joined the Blatz sales staff in Milwaukee, Wis., in 1940, coming from Falstaff Brewing Corp.

—DA—

### We Take The Time To Save You Trouble

The Reader Service Card on Page 36 is run for your convenience. Use it to get additional information on articles and services mentioned in this issue of DA.



## Industry Outlook . . .

(Continued from Page 19)

their warehouses contain finished products, 36 per cent of the total have unfinished or in-process products, and 17 per cent hold raw materials.

Individually—again excluding the food industries—46 per cent store finished goods only, and 18 per cent warehouse raw material only. None of the industries reporting warehouse unfinished or in-process products. Of the balance, about 10 per cent store all three types of products. The remainder—equally divided—store raw and finished, or unfinished and finished products.

### Practices Vary

Food industry warehouse practices vary, naturally, according to the types of products marketed. In the field of meats and provisions, for example, only raw products are stored. Canned meat packers, however, warehouse in-process, or semi-finished, products as well as finished products. Dairy foods industries have both raw and finished products in storage. And so on.

A few other facts concerning the combined food industries were determined. One is that a large part of the total warehouse area reported is unrefrigerated. Because several respondents omitted this information when replying to the other questions, it is impossible to quote a definite space differential. But to give a rough idea based on the reporting companies alone, the area division is about two-thirds unrefrigerated and one-third refrigerated.

### Private Ownership

Another fact uncovered is more surprising: 38 per cent of all companies in the food industry participating in the survey do not own warehouse facilities. They rely entirely on public warehouses, merchandise or refrigerated.

One other interesting fact is that also about 38 per cent of the firms in this industry having their own warehouses also use public warehouse space.\*

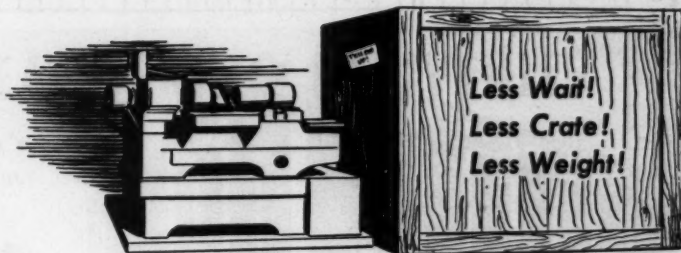
(Resume Reading on Page 20)

—DA—

### . . . Survey Results

Results of the Industry Survey conducted in the September issue of DA can be found on Page 19.

For the third and final set of questions on warehousing, see this month's Survey on Page 35.



UNCRATED FOR AIRFREIGHT

CRATED FOR SURFACE

## Reduce the Tare... Ship by Air!

By switching to airfreight a prominent lathe manufacturer now saves over \$50 per unit in transportation costs. Reduced tare weight through the elimination of a costly 570 lb. crate reduced airfreight below surface rates... and delivery time was cut from days to hours.

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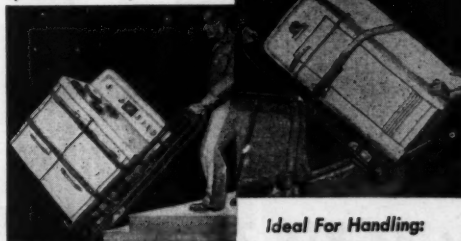
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- Any appliance



Catalog on request

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## Industry Items



Bekins Moving & Storage Co., under a long-term lease with option to purchase, has assumed the operation of Portland Van & Storage Co., Portland, Ore., on October 31, 1952. The original company was formed 47 years ago. J. J. Brooks will continue as warehouse manager under the Bekins ownership. The facilities cover 44,000 sq ft of floor space in a five story building, provide both local and nation-wide moving, household goods and commercial storage service, railroad pool-car shipping, and export packing for the overseas shipment of goods

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Ask your distributor or write for details today.



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MICHIGAN

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Northwestern Transfer Co., purchased Atlas Transfer and Storage Co., New York, N. Y.

Georgia Ports Authority, dedicates the new \$6 million Savannah State Docks Nov. 11.

Atlantic Steel Company's new Warehouse Division building in Atlanta, Ga., will be ready for occupancy early this month.

Oliver Corporation, Chicago, Ill., purchased all resources and facilities used by Carter Industries, Cincinnati, Ohio, in the manufacture of Black Velvet gravity conveyors.

International Harvester Co., construction now under way on a new motor truck sales and service branch in Schenectady, N. Y.

General Electric Co., broke ground Sept. 24 in Philadelphia, Pa., for the new \$1,690,000 service shop and warehouse.

Pacific Intermountain Express, opened a leased branch office and terminal in San Jose, Cal.

Merck & Co., Inc., Rahway, N. J., purchased a large standardized steel warehouse from the Luria Engineering Co., for erection in St. Louis, Mo.

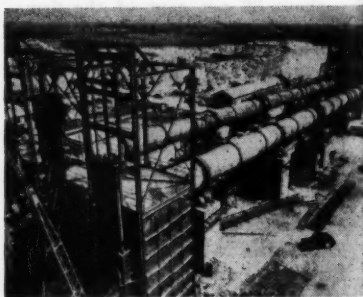
Tennessee Coal & Iron Division of U. S. Steel Co. will handle imported ore at its new iron ore terminal in Mobile, Ala., with a 15-ton capacity unloader being constructed by Dravo Corp., Pittsburgh, Pa.

The Ballinger Associates, succeeded by the Ballinger-Meserole Co. The new firm will continue at the same address with the same personnel.

The Port of New York Authority, commenced operation of the Hoboken-Port Authority Piers under a lease agreement with the City of Hoboken.

The Port of Houston purchased—226 acres for \$1,304,000—this gives the port authority an additional 4500 feet of ship channel frontage in the Turning Basin area.

Cincinnati Terminal Warehouse, Inc. converted 200,000 cu. ft. of cooler space to freezers.



The Cleveland Cartage Co. recently completed the erection of the two largest rotary kilns in the industry for Basic Refractories, Inc., Maple Grove, O., as part of the latter company's \$3.5 million expansion program. Nearly two million pounds of machinery were used in the project

all of their American competitors combined—There must be a reason—How to use the mechanical index: Find the name in the index, then turn the MECHANICAL INDEX to the correct number on the map.

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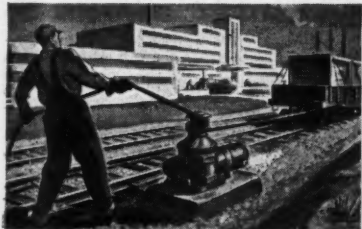
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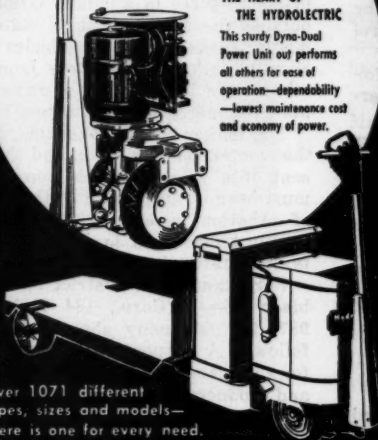
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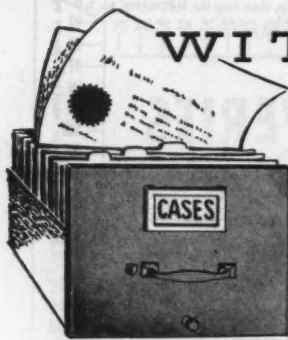
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# WITHIN THE LAW

By Leo T. Parker

Legal Consultant, Distribution Age

## TRANSPORTATION

Considerable discussion has arisen from time to time over the legal question: "Is the leasor of a motor truck, used to transport merchandise in interstate commerce, required to have a permit?"

According to a higher court decision rendered last month, the answer is no, and the leasor may also supply a driver for his leased truck.

For example, in *State v. T—*, 90 Atl. (2d) 456, the testimony showed facts as follows: One T— was the driver of a motor truck operated in the transportation of merchandise from one state to and through other states. Hence, the truck was operated in interstate commerce. This truck was owned by a man named C— who paid T— a regular salary.

C— leased the truck to the H— Interstate Trucking Co., and furnished T— to drive the truck. The trucking company paid C— \$90 for each trip from New York, N. Y. to Portland, Me. The trucking company issued bills of lading for the merchandise and had complete control over T—.

One day T— was arrested for transporting merchandise in interstate commerce without a permit.

In subsequent litigation the higher court held that C— was not an interstate carrier, and therefore not required to have a permit. The court held that T— was protected by the permit held by the trucking company, and that he was guilty of no offense in driving the truck.

### What rules determine whether a common carrier may have his certificate or permit enlarged?

Last month a higher court answered this question: "What legal rule determines whether a common carrier may have its certificate or permit enlarged?"

For example, in *F— Trucking Co. v. Pennsylvania Public Service Commission*, 90 Atl. (2d) 294, it was disclosed that a trucking company

filed a request with the Public Service Commission to serve certain towns through which its truck routes passed but which it was prohibited to serve. Against protests by other trucking companies the Commission granted the request.

The higher court approved the Commission's ruling and explained that the test whether a Public Service Commission should grant an application for a certificate, or increase the scope of an existing certificate is not whether services being supplied by various carriers is satisfactory but whether there is a definite public need for the particular service proposed to be supplied by the applicant.

### What right has a state to tax movable property which belongs to out-of-state firm?

Here are interesting tax questions presented by readers: "What right has a state to tax movable merchandise and property belonging to an individual, firm or corporation whose principal place of business is located outside the state? Can a state tax motor trucks and other vehicles occasionally sent into the state from another state in which their owner has his principle place of business?"

The higher courts consistently hold that motor vehicles, cars, and the like sent into a state by a nonresident must bear its fair share of the burden of taxation, although such property is only temporarily located within the taxing state.

For example, in *District of Columbia v. S— Corp.*, 184 Fed. (2d) 987, the testimony showed facts as follows: A corporation uses vehicles for the transportation of merchandise and products from Virginia and Maryland to places in the District of Columbia, and thereafter to points of delivery in Maryland and Virginia.

The higher court held that the District of Columbia could tax the equipment on a fair apportionment valuation basis as between the District and adjoining states from which the vehicles transported merchandise

to storage places in the District. This court said:

"Permanency in the sense that it must be fixed like real property is not essential to the establishment of a taxable situs for personal property. It seems to be sufficient for valid taxation if in the ordinary course of business, the property is present and being used and employed with consistency and not spasmodically. For verification see 340 U. S. 933.

### Court will consider rates in effect in some locality when determining validity of other rates

Generally speaking, a court will consider freight rates in effect in some locality when determining the validity of freight rates in another locality.

See *T— v. Commission*, 246 Pac (2d) 257. This higher court held that freight rates voluntarily established by carrier may be used as good evidence to establish freight rates under similar conditions in other localities.

### Can a shipper recover damage for spoilage without proving negligence of the carrier?

According to a leading higher court decision, a shipper of merchandise cannot recover damages from a carrier for spoilage of perishable merchandise, unless he proves that the carrier's negligence caused the spoilage.

For example, in *G— Trading Co. of New York v. Chicago & North Western Railway Company*, 184 Fed. (2d) 876, it was shown a common carrier transported a shipment of pelts and when the shipment was delivered to the consignee the pelts were spoiled and in a deteriorated condition. The consignor sued the carrier for the value of the pelts and alleged that the loss and damage was due to the careless and negligent handling of the car of pelts by the carrier.

The consignor failed to prove in what respect the carrier was negligent. Therefore, the higher court held the carrier not liable for the loss, saying:

"The sole evidence offered as proof of defendant's (carrier's) negligence consisted of the time, place and condition of the pelts at the time they were loaded."

## DISTRIBUTION & MARKETING

A reader writes: "I have been reading your legal columns for many years. Recently you stated that a seller of merchandise may be liable on a guarantee if he keeps silent. Just what did you mean by this statement? It seems to me that if a seller keeps silent and makes no guarantee on the quality of merchandise he sells there

(Please Turn to Page 84)

and Firms are Arranged Alphabetically



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### Chuting the News

(Continued from Page 13)

#### Aid to Warehousing

Standardization of about 90 per cent of the name plates and part markings on equipment purchased by the Air Force will simplify the warehouse operation of the Air Materiel Command's Supply Division. The new standards, in addition to insuring proper identification and more effective logistical control of Air Force equipment, assemblies and parts, will prevent multiple stocking of the same items by different manufacturers, prevent non-interchangeable items from being stocked together and simplify inspection.

The Frick Co., pioneer builders of refrigerating machinery, located in Waynesboro, Pa., is laying plans for celebration of its 100th anniversary next year.

(Please Turn to Page 73)

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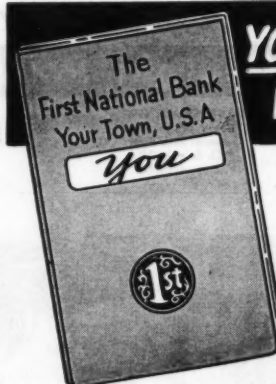
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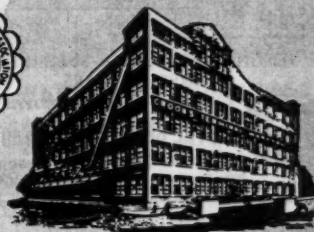
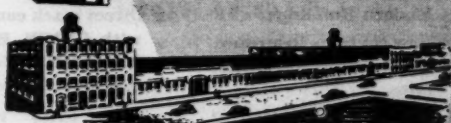
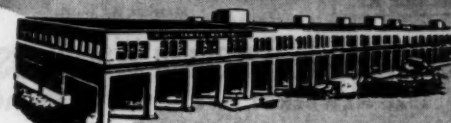
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Trap Cars Consolidated	Financing
Pool Cars Distributed	



## CROOKS TERMINAL WAREHOUSES, Inc.

Chicago 7-433 W. Harrison St. New York Office 16-271 Madison Ave. Kansas City 7-1104 Union Ave.  
Associated with Overland Terminal Warehouse Co., 1807 E. Olympic Blvd., Los Angeles 21  
Members of the American Warehousemen's Association and Interlake Terminals, Inc.

## Chuting the News

(Continued from Page 71)

### Department Expansion

*Commercial Solvents Corp., New York, N. Y., has enlarged its traffic department with headquarters in the New York office. O. L. Culbreth, general traffic manager, will be in charge of the department.*

—DA—

Two new trailers added to the Gramm Trailer Corp. line in mid-August are now available through local distributor agencies.

—DA—

### Annual ASTT Meeting

More than 200 members and guests attended the Annual Meeting of the American Society of Traffic and Transportation in St. Louis, Mo., Oct. 30. Clyde B. Aitchison, former ICC chairman, addressed the group on "Professional Standards in Traffic and Transportation Management."

—DA—

### Associated Wins Cup

Associated Warehouses, Inc., was awarded a silver cup for the best direct mail campaign of 1952, according to national contest results announced in Washington last month.

Bloom serum supplies are now being stored in 27 public refrigerated warehouses across the nation as a safeguard against possible large scale bombing of American cities.

—DA—

### Watch Out Behind!

The relatively simple feat of operating in reverse is actually the leading cause of accidents involving commercial vehicles used in the trucking industry.

But the most expensive cause of accidents is still that old bugaboo—driving too fast.

These are two of the major findings from the safety engineering department of the Kemper group of insurance companies. The safety experts studied more than 1,000 fatal, non-fatal and property damage accidents involving drivers in the trucking industry and found that 36 per cent were caused by the driver backing up improperly; 17 per cent of the mishaps were due to speeding.

—DA—

Orders for construction machinery continue firm and the supply of most items of such equipment is above normal, according to NPA.

(Please Turn to Page 80)

CHICAGO, ILL.

Member A. W. A.

## Griswold & Bateman Warehouse Co.

1525 NEWBERRY AVE. CHICAGO 8

- Modern Buildings.
- Low contents insurance.
- Reshipping, city deliveries.
- Vacuum fumigation of food stuffs, tobacco, etc.
- Cooling Rooms.
- Direct track connections with C&NW, B&O, Soo Line, PM, CGW. and B&OCT Railroads.
- Over Fifty Years of Warehousing Experience.

Represented by

CHICAGO 4  
284 E. MORGAN AVE.  
WA 3-3267



NEW YORK 19  
11 WEST 42ND ST  
PE 4-0967

CHICAGO, ILL.

Member: N.F.W.A.  
Allied Van Lines

SERVING CHICAGO & SUBURBS FOR  
OVER 49 YEARS



Consign Your Shipments to  
**JOYCE BROS. Stge. & Van Co.**  
6428 N. Clark St., Chicago 26  
ROgers Park 4-0633—Teletype CG-2196



CHICAGO, ILL.

63 Years of Reliable Service



**LINCOLN MAYFLOWER WAREHOUSES**  
Coast to Coast  
4251-59 Drexel Blvd. Chicago 15, Ill.  
Storage—Packing—Shipping  
Local and Long Distance Moving



## MIDLAND

In Chicago, Illinois

A complete warehouse organization fully equipped to handle merchandise rapidly and economically with convenient locations for local trade and excellent transportation facilities for national distribution. Chicago Junction In and Outbound Union Freight Station—direct connections with thirty-eight railroads. Receiving Stations for Railroads, Express and Truck Lines on premises.

Inquiries Invited on Storage,  
Office and Rental Requirements

**MIDLAND WAREHOUSES, INC.**  
1500 S. WESTERN AVE.  
CHICAGO 8, ILL. • CAnal 6-6811



For Shippers' Convenience, States, Cities

CHICAGO, ILL.

Complete Warehouse Service  
40 Years Experience

## PACKERS TERMINAL & WAREHOUSE CORP.

4000 Packers Ave.

Chicago 9, Ill.



Cooler Storage  
30,000 sq. ft.

General Merchandise  
Storage & Lease  
300,000 sq. ft.

Private Sidings on Chgo. Jct. Ry. 25 Car Cap.  
Ample Truck Facilities—Central Location

CHICAGO, ILL.

Close to the Loop District, these two co-operated warehouses offer quick, efficient and economical service to stores and distributors in Chicago and the Mid-West.

## PRODUCERS WAREHOUSE CO.

344 No. Canal St. (6) C. & N. W. Ry.

## THOMSON TERMINALS INC.

346 W. Kinzie St. (10) C. M. St. P. & P. R. R.

Prompt Deliveries

Advances Made

CHICAGO, ILL.

## RIVERSIDE WAREHOUSE

of Anchor Storage Co.

219 East North Water St., Chicago 11, Ill.

Telephone Mohawk 4-3325

## GENERAL MERCHANDISE STORAGE

Centrally located one block east of Michigan Ave. Bridge  
Ten Car Private Siding C & N W Ry.  
Represented by Distribution Service, Inc.



Member AMERICAN WAREHOUSEMEN'S ASSOCIATION



Member AMERICAN WAREHOUSEMEN'S ASSOCIATION

Since 1914  
**SOO**

**TERMINAL WAREHOUSE**

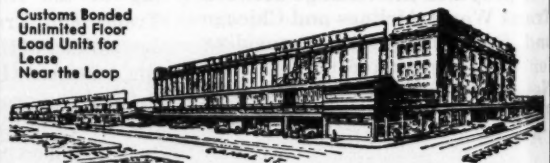
"The Economical Way"

Division of Beatrice Foods Co.

519 W. Roosevelt Road, Chicago 7, Ill.

Complete Merchandise Warehousing including Cartage.  
Year-round Candy Storage. One-half million sq. ft.

Customs Bonded  
Unlimited Floor  
Load Units for  
Lease  
Near the Loop



CHICAGO, ILL.

In Chicago use

## SYKES COMPLETE WAREHOUSE and Distribution Service

Fully sprinklered warehouse building for merchandise storage exclusively. Centrally located—only 12 minutes from the loop. Complete warehouse service with personal supervision.

Pool Car Distribution.

**SYKES TERMINAL WAREHOUSE CO.**

929 West 19th St., Chicago 8, Ill. Phone Monroe 6-2370



## Washington DA

(Continued from Page 15)

### Government Inventory

A sizeable number of items of materials handling equipment, owned by the government, is still stored here and there. Just how many is not yet clear. For more than five years the government has been trying to get a firm inventory of its machine tools and other capital equipment. It was not until the job was handed over last spring to NPA that much progress was made.

The NPA job is reasonably good, though it has its weak points. It has managed to pull together a 30-, 000-card index record, one item per card. While the amount of information on each card varies, generally the basic facts are there—manufacturer, model, condition (excellent, good, fair, etc.), and where located.

About 10,000 of these are items which are not truly production equipment and include many materials handling items such as hoists, conveying systems, etc. Unfortunately, although the card index system is broken down by general groupings, the materials handling items are not yet segregated into a separate group.

### Defense Storage

Government plans for spreading its military storage contracts more equitably among commercial warehouses have gotten started. First concrete result of the program was the formation last month, with the blessing of the Defense and Justice Departments and the DTA, of the Defense Warehousemen's Association for the Philadelphia area.

Roughly, the idea is to set up a means whereby warehousemen in specific regions can band together and make a single joint contract with the government to store defense and military supplies. Goods assigned to the area for commercial storage will be prorated among association members in proportion to the amount of public storage space operated by each.

Similar setups are about to be completed in Chicago and for the Port of New York. For the present, only the Defense Department will contract for space. But in an emergency, the plan would be widened to include storage for other agencies.

### Distribution Gets a Hand

Last month Secretary Sawyer officially confirmed earlier reports by DISTRIBUTION AGE when he announced the establishment of an Office of Distribution within his Commerce Department. It is now learned that eventually the new office is to be combined with another—an Office of Production—to make up a new bureau to be known as the Bureau of Production and Distribution.

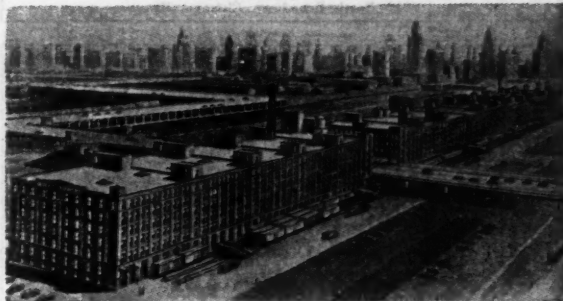
Purpose of the new Bureau will be to assist industry and business in keeping the nation's vastly expanded production capacity going after defense business slacks off. Sawyer believes too much attention has been given in the past to production and not enough to distribution. He says there's no use in producing if the output can't be distributed.

While the work of the new distribution office will

(Please Turn to Page 94)

NOVEMBER, 1952

## Facilities of the NORTH PIER TERMINAL CHICAGO



### MAIN DOWNTOWN WAREHOUSE BUILDINGS

For space leasing: office and warehouse

Distinctive location in Chicago's front yard, at the mouth of the Chicago River. 840 feet office frontage at 444 and 446 Lake Shore Drive. Buildings: 365-539 E. Illinois St. Combine your office with your warehouse and service department. Space leasing. 12 minutes walk to loop. 3 blocks to Michigan Ave. Bus lines to downtown area and passenger stations. Other bus service and surface lines to loop, west and south side, with connections to elevated, subway and other cross-line traffic. Large parking area across the street.

**FACILITIES and SERVICE FEATURES**—1,250,000 sq. ft. mill and brick constructed buildings. Sprinklered, low insurance. Laminated floors, floor load up to 335 lbs. 33 elevators. C. & N. W. siding—capacity 120 cars. Free switching, at night only. Vehicle loading. Doors and platforms, both front and rear; capacity 100 trucks. Direct tunnel connection to all railroads for LCL shipments. Car unloading, tunnel loading, elevator operation and maintenance, watchmen, heat.

### NORTH SIDE WAREHOUSE for general merchandise storage

For general merchandise, package storage and distribution. 2740 Clybourn Ave. 200,000 sq. ft. sprinklered, low insurance, heavy floor load. C. & N. W. and C. M. St. P. & P. sidings, covered platform for 20 trucks.

### SOUTH SIDE WAREHOUSE for transit storage

For in-transit, car load movement in and out. 95th and Cottage Grove. 100,000 sq. ft., fully mechanized, unlimited floor load, I.C. siding inside building.

### DOWNTOWN SHIP DOCK HOUSE for transfer of merchandise

At mouth of the Chicago River, 400 E. South Water St. loading and unloading of lake and foreign ships during navigation period.

### BARGE DOCK for transfer of bulk and general merchandise

At 2905 S. Western Ave. Handling of river barges from and to New Orleans and intermediate points.

### DOWNTOWN WAREHOUSE for general merchandise storage

At 120 E. South Water St. for general storage. On New York Central Lines.

**MEMBER**—American Warehousemen's Association—Illinois Association Merchandise Warehousemen—Chicago Association of Commerce, Illinois Chamber of Commerce, and U. S. Chamber of Commerce.

**Eastern Representative:** J. Leo Cooke Warehouse Corporation. New York phone: WH. 3-5090.

## NORTH PIER TERMINAL CO.

Executive offices: 444 Lake Shore Drive,  
Chicago 11—SUperior 7-5606

W. W. Huggett,  
Pres. and Gen. Mgr.



S. T. Heffner,  
Vice Pres.-Sales



**CHICAGO, ILL.**

Phone Lincoln 9-0730

Teletype CG 2047

**LONG DISTANCE MOVING**

Low Rates all Points Coast to Coast  
By Motor Van or Pool Car  
Expert Packing—Crating—Shipping  
**POOL CAR DISTRIBUTORS**  
Bonded Warehouse

**UNION VAN LINE, INC.**

General Offices and Warehouse  
4015 North Broadway, Chicago, Ill.

**CHICAGO, ILL.**

Merchandise Storage and Distributors

**WAKEM & McLAUGHLIN, Inc.**

Established 1886—Our 66th Year

MAIN OFFICE—225 E. ILLINOIS ST., CHICAGO 11

U. S. Internal Revenue Bonded Warehouse

U. S. Customs Bonded Warehouse

A.D.T. Service

**ADVANCES MADE**

Our ample financial resources enable you to negotiate  
loans right in our office.

Prompt Delivery and Best of Service  
Bottling in Bond

**AMERICAN WAREHOUSEMEN'S ASSOCIATION****CHICAGO, ILL.****One of Chicago's Finest**

A half million feet of modern warehouse space where  
you have every advantage for receiving, shipping and  
reshipping. Track space accommodates 360 railroad  
freight cars. 79 ft. covered driveways practically sur-  
round the clean, light and airy warehouse.

Located on the edge of Chicago's famous Loop and  
only one block from the mammoth new Post Office,  
Western Warehouse is in the heart of all business  
activity. Write for complete information.

**WESTERN WAREHOUSING COMPANY**

323 West Polk Street

Chicago 7, Ill.

**EAST ST. LOUIS, ILL.**

Bridge 3723

**MERCHANDISE WAREHOUSING**

For The Carload Shipper

360,000 Sq. Ft. on One Floor  
50 Car Private Siding on TRRA.

Storage In Transit Privileges  
A.D.T. Burglar & Sprinkler Alarms

S. J. LUSBY, Manager

**MISSISSIPPI AVENUE WAREHOUSE**

EAST ST. LOUIS, P. O. BOX 26, ILL.

**JOLIET, ILL.**

Telephone 4381 and 4382

**Joliet Warehouse and Transfer Company**

Joliet, Illinois

**MERCHANDISE STORAGE AND DISTRIBUTION**

Best distributing point in Middle West

Located on five Trunk Lines and Outer

Belt which connects with every road enter-

ing Chicago. No switching charges.

Chicago Freight Rates Apply



For Shippers' Convenience, States, Cities

**JOLIET, ILL.****TRANSIT WAREHOUSE AND DISTRIBUTING CO.**

36 CASSEDAY AVENUE, JOLIET, ILLINOIS

Phone—Joliet 5278

**Merchandise Storage and Distribution**

The only completely Palletized warehouse in Joliet

Pool Car Distribution • Motor Freight Service  
Located on Rock Island R. R. • Free Switching

**JOLIET, ILL.****WILL COUNTY WAREHOUSE COMPANY**

formerly Joliet Mfg. Co., which was Established 1940

150 Youngs Ave., Joliet, Ill.



Offers 50,000 Sq. Ft. of modern warehouse space, located  
on the CRI and PRR Roads. Private siding and free switch-  
ing. General Merchandise storage.

Automatically Sprinklered Throughout

Member of AWA

**PEKIN, ILL.**

Location—10 miles from Peoria, Ill.; 165 miles from  
Chicago, Ill., or St. Louis, Mo.

**KRIEGSMAN TRANSFER COMPANY**

231 Margaret St., Pekin, Illinois



Merchandise & Household Goods Storage—Moving & Crating  
150,000 Sq. Ft. • One Floor • Brick Construction • Sprinklered  
• Heated • Private Siding 24-Car Capacity •  
11 Trucks • Free Switching by: CCC&STL •  
Santa Fe • Illinois Central • Alton • Rock  
Island • Chicago & Illinois Midland • and  
P&PU Railroads • TELETYPE: PEKIN, ILL. 8469.

**ROCKFORD, ILL.****LORDEN STORAGE CO., INC.**

330 South Wyman St.

Rockford, Ill.

Phone 3-5409

**Household Goods Storage**

The most modern, bonded, fireproof storage warehouse in the entire  
Rockford area.

Packing — A.D.T. Sprinkler System — Crating — Shipping

**ANDERSON, IND.**

H. D. FOLEY, Pres.

**Merchandise Storage and Pool Car Distribution**

Consign NYC-PRR—Reciprocal Switching—Open Yard Storage

MOTOR FREIGHT TERMINAL—Used by 2 Motor Freight Lines

Branch Office Facilities — Members IndWA — InpsWA

**MERCHANDISE WAREHOUSE CO., INC.**

120 W. VINEYARD ST., ANDERSON, IND.—Phone 3-5396

**EVANSVILLE, IND.**

Experienced Personnel—Prompt Service

Complete warehousing and distribution services—160,000 sq. ft. on one  
floor—Unlimited floor load—Spotting for 50 carloads at one time—30  
delivery doors—Low insurance rate.

Sprinklered—Palletized—Open yard storage

**BEELER WAREHOUSE CORP.**

1147 WEDEKING AVE.

Phone 5-3585

**EVANSVILLE, IND.****MEAD JOHNSON TERMINAL CORP.**

P. O. Box 597, EVANSVILLE 2, INDIANA

"Where Waterway . . . Railway . . . Highway Meet"

With the most modern and most unusual River-Rail-Truck Ter-  
minal and Warehouse in the United States. Sprinklered—A.D.T.

Located only ninety miles from the country's center of popula-  
tion. Served by six large railroads, many motor freight lines and  
the American Barge Line, Mississippi Valley Barge Line, Union  
Barge Line and independent towing operations.

Merchandise and food commodities of every description, from  
every part of the globe, can conveniently reach, be economically  
stored, and then efficiently distributed from Evansville.

Write for booklet completely describing the many unusual services  
available.

Member of A.W.A.

Represented by

CHICAGO 4  
304 E. MICHIGAN AVE.  
WA 3-2367

ALLIED DISTRIBUTION INC.  
NEW YORK 18  
11 WEST 43RD ST.  
PL 6-8927

and Firms are Arranged Alphabetically

## NEW ORLEANS, LA.

Member of A.W.A.

### ORLEANS STORAGE COMPANY, INC.

725 So. Liberty Street

Specializing in MDSE. Distribution

All concrete Warehouse, sprinklered, low insurance rates. Low handling costs. Switching connections with all rail lines. State Bonded. Inquiries Solicited.

## NEW ORLEANS, LA.

L. A. Kloor-E. J. Kraft, Owners

### STANDARD WAREHOUSE COMPANY

100 Poydras St. - - - - - New Orleans 8, La.

MERCHANDISE STORAGE—POOL CAR DISTRIBUTION

Located in the Heart of the Wholesale District • Convenient to Rail & Truck Depots • Private Switch Tracks T & NO-SP RR • Reciprocal Switching  
COMPLETE WAREHOUSING SERVICE

## SHREVEPORT, LA.

### Herrin Transfer and Warehouse Co., Inc.

1305 MARSHALL ST., SHREVEPORT, LA., P. O. BOX 1806

COMPLETE DISTRIBUTION SERVICE

Member

American Warehousemen's Association  
Southwestern Warehouse & Transfermen's Association

## BANGOR, MAINE

### McLAUGHLIN WAREHOUSE CO.

Established 1875 Incorporated 1918

General Storage and Distributing

Rail and Water Connection—Private Siding

Member of A.C.W.—A.W.A.—N.F.W.A.

## BALTIMORE, MD.

C. M. Wrightson, Mgr. & Treas.

### CAMDEN WAREHOUSES

Rm. 301, Camden Sta., Baltimore 1  
Operating Terminal Warehouses on Tracks of

The Baltimore & Ohio Railroad Co.

A. D. T. Private Watchman, Sprinkler

Storage—Distribution—Forwarding

Tobacco Inspection and Export—Low Insurance Rates

Consign Via Baltimore & Ohio Railroad

## BALTIMORE, MD.

### Complete Warehousing Services



A.W.A.  
N.F.W.A.  
M.M.A.  
N.M.T.A.  
A.T.A.



- Modern, protected facilities
- Commercial & Household Storage
- Packing, Crating & Shipping
- Distribution
- Moving Services
- U. S. Customs Bonded Draymen
- Specialized Export Packaging

4301 Palaski Hwy.  
Broadway 7900  
Teletype BA 498

**DAVIDSON**  
TRANSFER & STORAGE CO.



AMERICAN WAREHOUSEMEN'S ASSOCIATION

## BALTIMORE, MD.

MEMBER: I.M.W.A.—M.D.F.W.A.—M.D.M.T.A.—N.H.C.C.—A.T.A.

### J. NORMAN GEIPE VAN LINES, INC.

524-536 W. Lafayette Ave., Baltimore 17, Md.

See our advertisement on page 208—  
1952 edition of D and W Directory

## BOSTON, MASS.

Owned and Operated by Merchants Warehouse Co.

### CHARLES RIVER STORES

131 BEVERLY STREET—BOSTON 14, MASS.



Facilities, 230,000 square feet. Private siding Boston & Maine Railroad. Reciprocal switching, other railroads. Truck platform. U. S. Internal Revenue and Customs Bonded. General merchandise storage. Pool car distribution. Located on Boston's new Arterial Highway. Member A.W.A. and M.W.A.

## BOSTON, MASS.

Established 1896

PACKING

MOVING

D.W. **DUNN** CO.

STORING

SHIPPING

Member: MayWA-MassFWA-CanWA

3175 Washington St.

## BOSTON, MASS.

### FITZ WAREHOUSE CORPORATION

operating

ALBANY TERMINAL STORES

137 Kneeland Street, Boston 11

GENERAL MERCHANDISE STORAGE

B. & A. R.R. Delivery

## BOSTON, MASS.

### Hoosac Storage & Warehouse Company

Lechmere Square, East Cambridge 41, Boston

FREE AND BONDED STORAGE

A.D.T. Automatic Fire Alarm

Direct Track Connection & B. & M. R. R.

Lechmere Warehouse, East Cambridge, Mass.

Hoosac Stores, Hoosac Docks, Charlestown, Mass.

Warren Bridge Warehouse, Charlestown, Mass.

## BOSTON, MASS.

### STORAGE

Wool, Cotton and General Merchandise  
INDUSTRIAL SPACE FOR LEASE

IN UNITS TO SUIT TENANTS



LOCATION: Near but outside congested part of city. Obviates costly trucking delays. Overland express call.

STORAGE: For all kinds of raw materials and manufactured goods in low insurance, modern warehouses.

RAILROAD CONNECTIONS: Boston & Maine R.R. sidings connecting all warehouses at Mystic Wharf. New York, New Haven & Hartford sidings at E St.

DISTRIBUTION: Complete service for manufacturers distribution whether from storage or pool cars. Trucking to all points in Metropolitan District.

LEASING: Space in units of 2,000 to 40,000 ft. on one floor for manufacturing or stock rooms at reasonable rentals on short or long term leases.

DEEP WATER PIERS: Excellent piers for cargoes of lumber and merchandise to be landed and stored in connecting warehouses.

### WIGGIN TERMINALS, INC.

Boston 29, Mass.

Tel. Charlestown 0880



AMERICAN WAREHOUSEMEN'S ASSOCIATION

## SPRINGFIELD, MASS.

### Atlantic States Warehouse and Cold Storage Corporation

385 LIBERTY ST., SPRINGFIELD 1

General Merchandise and Household Goods Storage  
Cold Storage for Butter, Eggs, Poultry, Cheese, Meats  
and Citrus Fruits

B. & A. Sidings and N. Y., N. H. & H. R. R. and  
B. & M. R. R.

Member } A. W. A.  
M. W. A.

Daily Trucking Service to  
suburbs and towns within  
a radius of fifty miles.

## SPRINGFIELD, MASS.



**HARTFORD DESPATCH**  
and WAREHOUSE CO., INC.  
214 Birnie Ave., Springfield, Mass.

U. S. Customs Bonded Warehouses—Terminals • Daily Distribution in Conn. and Mass.  
Private Sidings • Pool Distribution • Members: AD, Inc.—ACW—AWA

## SPRINGFIELD, MASS.

Max Lyon, Pres.

### NELSON'S EXPRESS & WAREHOUSE CO., INC.

Merchandise Storage—Pool Car Distribution  
Fleet of Trucks for local delivery.

93 Broad St.  
Springfield, Mass.

Telephone  
6-8334—6-8335

## SPRINGFIELD, MASS.

General Cold Storage

### Pioneer Valley Refrigerated Warehouse, Inc. P. O. Box 155 Brightwood Station

Wholesaler of steel & concrete, automatic fire & burglar alarms—ADT. TSBarn 1,000,000  
sq. ft. Fl. Ld 350 lbs. Cl. Ht 8-10 ft. Elev cap 5,000 lbs. Priv siding 50-car cap sq. ft.  
consign shipments via R.R. to: Brightwood: free switching. 100% packing.  
Temp. range —10° to 40°. Humidity control. 15-18 in. dock. Specialize in frozen food.  
Open yard steps. Dr. office facilities. Loans on stored commodities. Printed tariff.  
Member of the A. W. A. (Cold Storage Div.)

## SPRINGFIELD, MASS.



### J. J. SULLIVAN THE MOVER, INC. Fireproof Storage

Offices: 385 LIBERTY ST., SPRINGFIELD 1  
HOUSEHOLD GOODS STORAGE, Packing,  
Shipping, Pool Car Distribution of All Kinds  
Fleet of Motor Trucks

## DETROIT, MICH.

### Facing the Busiest Thoroughfare in DETROIT

200,000 square feet, Centrally located. Private  
siding facilities for 20 cars with free switching  
from all railroads. Large, enclosed loading  
dock. Our own fleet of trucks make prompt  
reshipment and city deliveries.

### JEFFERSON TERMINAL WAREHOUSE

1900 E. Jefferson Ave.

DETROIT 7, MICHIGAN

## Chuting the News

(Continued from Page 73)

### Mainliner Inaugural

Mainliner Convairs will have  
their world inaugural in scheduled  
service Nov. 16 in eight cities on  
California and Nevada routes of  
United Air Lines.

—DA—

Frank E. Kearney of the  
J. Leo Cooke Warehouse Corp.  
addressed the Paterson, N. J.  
Rotary Club recently on "Ware-  
housing and the Part It Plays  
in Modern Distribution."

—DA—

### Temco Foreman's Suggestion Cuts Assembly Man-Hours

A suggestion by Lloyd D. Cain,  
second shift leadman at Texas En-  
gineering and Manufacturing Co.,  
Inc., Dallas, Tex., to install addi-  
tional work platforms on Boeing  
B-47 rear fuselage master jigs has  
improved workmanship and reduced  
man-hours by providing a more  
comfortable position for mechanics  
working on the top of the section.

In the TEMCO operation, the  
large fuselage sections are assem-  
bled in huge master jigs resem-  
bling ship docks. These jigs are  
floored at different levels to pro-  
vide work platforms for the vari-  
ous operations, but of necessity  
platforms were spaced far enough  
apart to provide head room for the  
assembly workers. The top level  
had to be high enough to reach the  
fin stub, and at the same time fitted  
close to the section itself for safety.

While this provided a comfort-  
able position for the men working  
on the fin, those working on the  
top of the fuselage were forced to  
squat or sit on the floor to perform  
their operations.

Under Cain's suggestion, addi-  
tional platforms were installed  
about two feet below the top deck  
level. The section of the top plat-  
form over these added platforms  
was hinged so that the assembly  
mechanics could use the top level  
while working on the fin stub and

then fold it back and step down to  
the lower level for the fuselage  
operations.

According to TEMCO production  
officials, the new platforms have re-  
sulted in savings of up to six man-  
hours per section.

—DA—

### Lamson Sponsors MH Scholarships

The Lamson Corp., Syracuse,  
N. Y., has established, this fall,  
scholarships in Mechanical or  
Administrative Engineering at  
Stevens Institute of Technology,  
Hoboken, N. J., and Syracuse Uni-  
versity.

The scholarships are offered pri-  
marily to encourage talented chil-  
dren, grandchildren and other rela-  
tives of Lamson employees to study  
in the fields of mechanical engi-  
neering and material handling.

—DA—

According to a second quarter  
report, metal cans for products  
other than perishable foods are  
expected to be scarce until require-  
ments for perishable foods are  
fully met.

(Resume Reading on Page 15)



and Firms are Arranged Alphabetically

## KANSAS CITY, MO.

# 3

Choicely  
Located  
Warehouses  
in

## KANSAS CITY

To Insure Efficient and Economical  
Coverage of this Great Marketing Area

### CHECK THESE ADVANTAGES

Modern Facilities  
Responsible Management  
Spacious Switch Tracks  
Ample Truck Loading Doors  
Streamlined Handling Equipment  
Our Own Fleet of Motor Trucks  
Cool Rooms  
Storage in Transit  
Office Space and Display Rooms  
Financing

### ALL BRANCH HOUSE FUNCTIONS INCLUDING:

Receiving      Freight Payments  
Storing      Shipping  
Weighing      C.O.D.  
Marking      Sight Drafts  
Reconditioning Inventories  
Pool Cars Distributed

It costs you nothing to  
Investigate Crooks  
Terminal Facilities.  
Phone, wire or write us  
regarding your needs.



BROKERS BUILDING



SECURITY BUILDING



TERMINAL BUILDING



## Crooks Terminal Warehouses, Inc.

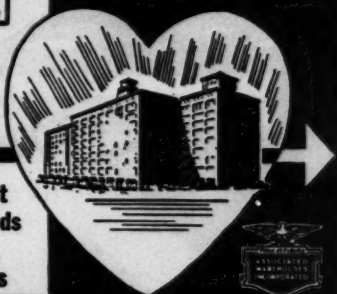
1104 UNION AVE., KANSAS CITY 7

Chicago 7—433 W. Harrison St. New York Office 16—271 Madison Ave.  
Associated with Overland Terminal Warehouse Co., 1807 E. Olympic Blvd., Los Angeles 21  
Members of the American Warehousemen's Association and Interlake Terminals, Inc.

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Storage and  
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Trackage on 4 Railroads  
TRUCK DOCKS...  
Low Insurance Rates



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KANSAS CITY 7, MO.

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### COMPLETE WAREHOUSE FACILITIES

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All buildings Concrete and Brick.

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200,000 Sq. Feet of Space  
BONDED Low Insurance

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Pool car distribution  
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**ACCOUNTABLE:**  
by reason of thoroughly trained and experienced personnel using complete and modern equipment and up-to-the-minute methods. The longest established merchandise warehouse in St. Louis, Long Warehouse offers full accountability.

**S. N. LONG WAREHOUSE**  
ST. LOUIS... The City Surrounded by the United States

## Within the Law

(Continued from Page 66)

could be no guarantee. Also, you stated that "silence" of a purchaser may result in a valid contract where a seller submitted an offer to sell merchandise at a definite price. How could such an obligation arise?"

First, it is important to know that all courts are in accord with the proposition that if either the buyer or seller declines to speak when speech is admonished at the peril of an inference from silence, his silence may justify an inference that he admits the truth of the circumstances relied on or asserted by the other party. See May, 184 N. C. 150.

Also, in Williston, it is said: "Silence, though unaccompanied by any act, may amount to fraud and deceit if the seller knew that by his silence the purchaser would be deceived into purchasing merchandise he would not have purchased if the seller had not remained silent.

Hence, if a seller knows that by his silence a prospective purchaser may be induced to purchase merchandise he would not otherwise purchase, such silence amounts to legal fraud. In other words, the seller is liable to the purchaser who may rescind the contract, and demand back the full purchase price, plus damages.

**A contract is not valid unless one party makes an offer accepted by another.**

The higher courts have established law that under no circumstances is a contract valid and enforceable unless one party makes an offer which the other party unconditionally accepts.

Some courts hold that silence of the recipient of an offer equals an unconditional acceptance, whereby a valid and enforceable contract is made.

For example, in C.M.N. Co. v. H., 214 S. W. 817, it was shown that a salesman took an order from a purchaser who heard nothing more from the seller until he requested that the seller ship the goods ordered several months earlier.

The court held that silence of the seller for an unusual length of time amounted to assent or acceptance of the order whereby a valid contract was made. This court held that acceptance of the buyer's offer could be "inferred" from silence of the seller, as it was his duty to not by silence lead the purchaser to believe that the goods would be shipped. Hence, in

this case the seller's silence accomplished a valid contract.

For comparison, see Davis, 252 S. W. 989. Here the testimony showed that a buyer requested a seller to cancel an order for merchandise. The seller cancelled the order on his books but by mistake shipped the rugs. In later correspondence the seller offered to extend the usual time for payment if the purchaser would keep and pay for the rugs. The purchaser did not respond or answer this letter, but kept the rugs for several months.

The higher court held that the purchaser must pay for the rugs and explained that the purchaser's silence plus his failure to promptly return the rugs resulted in a valid contract.

**Offer must be accepted unconditionally by second party to make it valid.**

As above explained an offer must be unconditionally accepted, otherwise there is no valid contract. For example, in one case a seller wrote a buyer and offered to sell 1,000 doors at a stipulated price, with one coat of oak stain varnish. Instead of unconditionally accepting this offer, the purchaser wrote: "I will accept your offer of May 26, but I don't want oak stain on the doors—make it clear

(Please Turn to Page 87)

and Firms are Arranged Alphabetically

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PACKING! MOVING! STORAGE!

—dependable since 1860—

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Manager

Incorporated  
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Tel.—(N.J.) Bigelow 3-7200

(N.Y.) Rector 3-3233  
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ADT. Ins. \$,004 Flr. Id. 250 lbs. Siding Lehigh Valley, 15 cars. Reinf. switch  
with PRR. Shelf, plat., 20 trks.  
SERVICE FEATURES—Co. oper. cartage, 52 trks. Spec. in food, liquors, elec.  
applis. 2 grav. rel. cos.; 8 ft. elev.; 120 plat. 12.; 14 hand tr.  
MEMBER—A.W.A.; N. J. Motor Trk. Assn.; Wm. Assn. N. Y.

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Agents for the Port of New York Authority  
Established 1948  
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Manager

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Foot of Doremus Ave.  
Tel.—Market 3-7463

FACILITIES—200,000 sq. ft. Reinf. concrete & steel. Fireproof. Sprinkler sys.  
withman ADT supervised. Private RR siding 15 cars PRR, CNJ, LV, shift. plat.  
30 trks. Deep water berth to 35'.  
SERVICE FEATURES—U. S. Customs bonded. 3-25 ton cranes. S.I.T. Pool Car  
dist. Co. oper. cartage conv. 52 trks.  
MEMBER—A.W.A.; N.J. Motor Trk. Ass'n; Wm. Ass'n N.Y.

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Storage in Transit privileges. All classes  
of modern warehouse service rendered.

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DISTRIBUTION**

## ALBANY, N. Y.

### JOHN VOGEL, Inc.

STORAGE WAREHOUSES

OFFICES, 11 PRUYN ST., ALBANY 7

HOUSEHOLD GOODS—STORAGE AND SHIPPING

FLEET OF MOTOR TRUCKS FOR DISTRIBUTION OF ALL

KINDS. POOL CAR DISTRIBUTION OF MERCHANDISE

YOUR ALBANY SHIPMENTS CAREFULLY HANDLED

Collections promptly remitted  
Member of AVL—NFWA—NYSWA



## Within the Law

(Continued from Page 84)

stain. Please make immediate ship-  
ment of the doors."

In subsequent litigation the higher  
court held that no valid contract was  
made because the purchaser did not  
unconditionally accept the seller's  
offer.

In another case a purchaser ordered  
merchandise with draft to be sent to  
the First National Bank in N. Y. The  
seller shipped the identical merchan-  
dise the purchaser had ordered but  
sent the draft to the Second National  
Bank, and so notified the seller. In  
the meantime the purchaser decided  
that he did not want the merchandise  
and refused to accept delivery.

In later litigation the higher court  
held that the seller rendered the con-  
tract invalid and unenforceable by  
sending the draft to a bank different  
from the bank specified by the pur-  
chaser.

If seller maintains silence  
to purchaser's counter offer  
is the contract valid?

Another important point of law is  
that a valid contract is made where a  
seller makes an offer; the purchaser  
submits a counter offer; and then the  
seller by his silence and without an-  
swering the counter offer, ships the  
merchandise to the purchaser. See  
Hartwell, 299 Ill. App. 399.

Also, see Excelsiot, 23 Ky. L. Rep.  
1834. Here, a purchaser wrote a let-  
ter to a seller making a counter offer  
different from the original offer sub-  
mitted by the seller. The seller did  
not respond to this counter offer but  
shipped the merchandise. The higher  
court held that the seller's silence  
rendered the counter offer made by  
the purchaser a completed and valid  
contract.

## WAREHOUSING

Last month the higher court  
rendered an outstanding and unusual  
decision in which it decided, first,  
whether a warehouseman has a gen-  
eral lien on all goods remaining in  
storage; second, when a warehouse-  
man is liable for freezing of stored  
merchandise; third, whether the ware-  
houseman is entitled to collect storage  
charges for damaged goods; fourth,  
whether a warehouseman can law-  
fully purchase goods sold at auction.

We shall review this important de-  
cision, in detail.

For illustration, in M— Packing  
Co., 90 Atl. (2d) 796, the testimony  
showed facts as follows: The M—  
Packing Co. engaged in the business  
of processing and packing dill pickles.  
This business includes the purchase  
of raw cucumbers from farmers and  
the processing of the said cucumbers  
in barrels. The processing methods  
involves a partial fermentation fol-  
lowed by cold storage warehousing  
(Please Turn to Page 100)



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**EMPIRE STATE WAREHOUSES COMPANY**  
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 STORAGE OF GENERAL MERCHANDISE  
 10 GIANT FLOORS 200,000 SQ. FT. OF SPACE  
 MODERN LOADING AND UNLOADING FACILITIES  
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**AMERICAN HOUSEHOLD STORAGE CO.**

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 Modern—Fireproof—Low Insurance  
 Rate on New York Central & Erie R.R.  
 GOVERNMENT BONDED WAREHOUSE

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FACILITIES 90,000 SQ. FT. FACTORY MILL CONSTRUCTION

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INC. 1906



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Complete Warehousing Service for Storage and Distribu-  
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Low Insurance Rates

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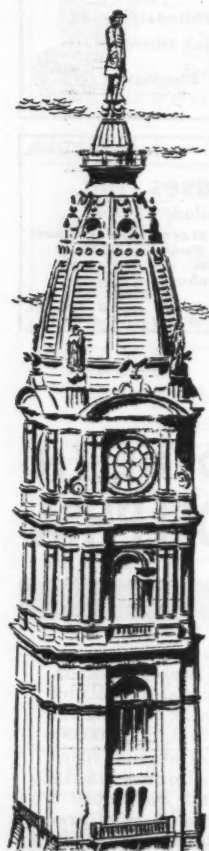
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off  
in

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"Terminal's" unique combination of location, facilities, and services means more time saved and money made in your Philadelphia metropolitan operations. Here are 13 big, modern, strategically situated warehouses—actually 68 acres of storage space—from which to choose.

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**PENNSYLVANIA**  
WAREHOUSING & SAFE DEPOSIT COMPANY  
303 Chestnut Street • Philadelphia 6

## Washington DA

(Continued from Page 75)

be primarily concerned with finding and developing markets, a lot of attention will also be turned to the improvement and development of new techniques for the handling and packaging phases of distribution.

### Military Transport

The Defense Department operates a big shipping service that rivals many private companies—a fleet of more than 500 seagoing ships.

But a report released on the service's third anniversary indicates that 70 per cent of its expenditures goes directly into the hands of private business and commerce.

The Military Sea Transportation Service was set up three years ago with the idea of merging and preventing duplication of military sea shipping schedules and otherwise placing a firmer control of military sea shipments into the hands of the Navy. It has now handled 67 million tons of measured dry cargo in addition to 37 million tons of petroleum products.

Both government owned and chartered ships are used. The financial report shows the cost to date as being in the general neighborhood of \$1.5 billion, including \$53 million paid out to private contractors for maintenance and repair. Of the total, more than \$1 billion has gone for charter of private tankers and ships.

(Resume Reading on Page 19)

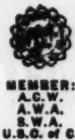


NORFOLK, VA.

Established 1892

## SOUTHGATE STORAGE COMPANY

239 Tazewell St., Norfolk 10



MEMBER:  
A.C.W.  
A.W.A.  
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- Three storage warehouses
- Low insurance rates

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**Within the Law**

(Continued from Page 87)

to arrest further fermentation until the pickles are ready for marketing.

During July and August of 1948, the packing company delivered 2,488 barrels of dill pickles to a warehouseman for cold storage and the warehouseman issued non-negotiable warehouse receipts therefor. Specifically, the warehouseman undertook to store the pickles at a temperature of not less than 32°F. Pickles freeze at that temperature. At various times, from Dec. 1, 1948 to April 27, 1949, the packing company withdrew 1,894 barrels of pickles from the warehouse.

On April 27, 1949, the warehouseman demanded payment of all storage charges then due, including charges on the 1,894 barrels previously withdrawn. The packing company refused to comply with this demand and the warehouseman refused to permit it to make further withdrawals.

**Does warehouseman have lien on stored goods to secure payment for storage of withdrawn goods?**

The first important legal question presented the court is: Does the warehouseman have a lien on the 594 barrels of pickles now in the warehouse to secure payment of storage charges on the 1,894 barrels of pickles previously withdrawn from storage? Stating the question in another way it is: Under the Warehouse Receipts Act, does a warehouseman acquire a general lien or a specific lien against goods for which non-negotiable receipts have been issued?

The counsel for the packing company argued that the warehouseman's lien was limited to the storage charges which had accrued for the 594 barrels. The packing company maintained that the warehouseman wrongfully as-

serted a lien against the barrels remaining in storage, for storage charges which had accrued for other barrels previously released. In short, the counsel for the packing company urged that, where non-negotiable warehouse receipts are issued, a warehouseman has a specific lien for storage charges which is enforceable only against the goods to which such charges relate.

The higher court refused to agree with this contention and held that the warehouseman had a general lien on the 594 barrels of pickles remaining in storage to secure payment of overdue storage charges on the 1,894 barrels of pickles that had been removed from storage. The higher court said:

"It is held that the Delaware Warehouse Receipts Act gives a warehouseman a general lien where non-negotiable receipts are issued. It follows that, in the instant case, the defendants (warehouseman) properly asserted a lien against the goods on

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deposit for all storage charges then owing by the plaintiff (packing company), and that such lien was not restricted to the storage charges due for goods then on hand.

For comparison, see *H—Marine Corp. v. B—*, 1 Cir., 189 F. (2d) 481. After exhaustive review of the common law, of the genesis of the Uniform Act, and of the construction of that Act in different jurisdictions, this Court concluded that the warehouseman has a general lien rather than a specific one where non-negotiable warehouse receipts are issued.

**Is warehouseman liable  
for goods destroyed in  
storage by his negligence?**

Another important point of law decided by this higher court involved the liability of the warehouseman for frozen pickles. The testimony showed that of the 1,894 barrels withdrawn from storage 300 barrels of pickles

were frozen while in the care, custody and control of the warehouseman.

The testimony showed that the freezing of the pickles resulted from the failure of the warehouseman to store them at a proper temperature and by defective insulation between rooms of the warehouse in which the pickles were stored and other portions of the warehouse, known as "Zero Rooms," which were kept at subfreezing temperatures. In view of this testimony the higher court held the warehouseman liable to the packing company for the full original value of the frozen pickles. In this respect the court said:

"The defendant knew or should have known of the defective insulation. As to the 370 barrels of pickles which were frozen, the defendants failed to exercise the care which a reasonably careful owner of similar goods would have exercised. The destruction by freezing of the said 370

barrels of pickles was caused by the negligence of the defendants."

The higher court refused to allow the warehouseman storage charges on these frozen pickles. In this respect the court said:

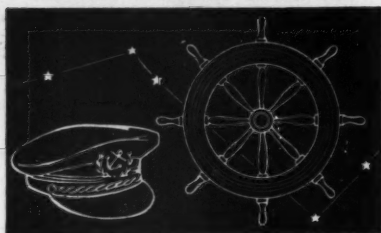
"The defendants are not entitled to storage charges for the 370 barrels of pickles destroyed as the result of their negligence. The defendants are entitled to storage charges for the rest of the pickles."

**Can a warehouseman legally buy  
stored goods at his own auction  
conducted according to law?**

This higher court was asked to decide this question: Can a warehouseman lawfully buy stored goods at his own auction sale which is conducted strictly according to valid laws?

The answer is yes, but the warehouseman must account to the owner  
(Please Turn to Page 102)





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## Within the Law

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of the sold goods for the difference between the price the warehouseman paid for the goods and the price for which he sold them.

This is so because, with respect to a lien-enforcement sale, a warehouseman is a fiduciary. Hence the warehouseman must be subjected to and governed by the "universal and stern" rules governing fiduciary and trust relations. Under those rules, the purchase by the fiduciary of the subject matter of the relationship is considered to be improper in the absence of special circumstances; a fiduciary is prohibited from purchasing from himself at his own sale; if the fiduciary does purchase at his own sale and later resells, the owner of the goods is entitled to any profit on the resale, after reimbursement to the fiduciary of proper expenditures. These rules are applied without regard for good faith.

In the above mentioned case the testimony showed that for the reason that the storage charges on certain of the pickles was unpaid the warehouseman fulfilled the requirements of the Uniform Warehouse Receipts Act, regarding notice and advertising and, on August 27, 1949, the pickles in the warehouseman's possession were placed on public sale. The sale was conducted by the warehouseman who bid \$1. There were no other bidders. The costs of the sale amounted to \$50. Soon afterward the warehouseman resold the pickles for the sum of \$5,553.

The higher court held that the warehouseman must account to the packing company for the difference between \$1 the price for which he bought the pickles at his own auction sale, and \$5,553. The court said:

"Generally, it is recognized that every bailment is a trust and that, while he is not a trustee in the technical sense of the word, a warehouseman holds goods in trust for his depositor. Then, too, it is clear that the Statute places a warehouseman in a trustee-like position in that it imposes upon him the two-fold duty of obtaining the best price possible for the goods of the depositor, when sold to satisfy the warehouseman's lien, and of acting for the benefit of the depositor or his assigns with respect to the residue of the proceeds of such sale after deduction of charges and costs. It is held that the defendant must be deemed to have resold the goods for the account of the plaintiff. In reselling the pickles which the defendant purchased at their own sale, the defendants will be deemed to have resold for the account of the plaintiff."

—DA—